

**EXPLORING MATTERING AND THE HUMAN-ANIMAL BOND:
THE IMPACT OF SERVICE DOGS FOR MILITARY VETERANS
AT HIGH RISK FOR SUICIDE**

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By

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ABSTRACT

Despite ample anecdotal evidence, there are limited meaningful studies speaking to the important role that animal-assisted intervention (AAI) may have in reducing suicide risk. However, research is increasingly showing the viability of service dogs (SDs) being used as a complementary approach for military Veterans suffering from post-traumatic stress disorder (PTSD) and substance use harms – two of the strongest indicators for suicidality across any population.

Using a critical suicidology approach with a One Health framework, my Master’s research utilized the concept of *zoeyia* - which recognizes the health benefits of animals in the lives of humans – to explore the significant role the human-animal bond (HAB) has in mediating suicidality. Using in-depth interview data from 28 transcripts that spanned an 18-month period, I undertook a secondary thematic analysis to explore the experiences of Canadian military Veterans at high risk for suicide working with SDs. My methodological approach used emotion and pattern coding to discover how the unique social support system enabled by the SDs can act as a catalyst to increase feelings of “mattering.” Mattering is a validated construct shown to reduce feelings of depression, loneliness, and hopelessness that are commonly associated with suicidal behavior.

My study is the first of its kind, known to me, to show that feelings of mattering can exist between a human and animal; this conclusion is based on the presence of the indicators of mattering appearing between all Veteran and SD pairings within the sample. Further to this, the SDs were reported by the Veterans as being the direct catalyst in reducing self-harm and suicidality, while also promoting feelings of hope for “healing.” While acknowledgement of how context specificity and the unique lived experience of each person remains crucial for making sense of suicidality, the significant finding from this research has been the uncovering of the synergistic impact that mattering has in the lives of Veterans where the SD has been a bridge to improve their overall quality of life - a finding that may be critical in helping reduce future suicide risk among military Veterans.

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DEDICATION

This thesis is dedicated to Kyley (Watson) Bulas;

In the words of your favorite, Florence, *the dog days are over* -
and you have been with me every step of the way.

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LIST OF ABBREVIATIONS

AAI - Animal-Assisted Intervention

HAB - Human-Animal Bond

ICR - Intercoder Reliability

MI - Moral Injury

SD - Service Dog

PTSD - Post-Traumatic Stress Disorder

Chapter 1 - Introduction

1.1 Context

The Centre for Suicide Prevention (2020) defines suicide as intentional self-inflicted death. The World Health Organization (2020) indicates that approximately 800,000 people die by suicide annually – one person every 40 seconds. A population at incredibly high risk for suicide across any adult age category is military Veterans (Simkus & VanTil, 2018). Canadian Veterans, specifically, are more than twice as likely to die by suicide compared to the general population (Center for Suicide Prevention, 2014), and the United States Department of Veteran Affairs (2019) estimates an average of 20 American Veterans die by suicide each day. While the current suicide statistics are alarming, the instances of those experiencing suicidal thoughts are also underreported: despite a proliferation of mental health awareness and anti-stigma campaigns globally, most service members do not seek help or treatment for their mental distress because of the stigma around receiving a psychiatric diagnosis (Leenaars, 2013).

The most frequently accepted explanation behind suicide is centred on how those with a diagnosable mental illness are at the highest risk (Government of Canada, 2016; White, Marsh, Kral, & Morris, 2016). However, this view is limiting as it does not explain why individuals without psychiatric labels also have suicidal tendencies and downplays the important role of social and contextual variables. Social variables are particularly important in the case of suicide by military Veterans, as it is widely recognized that Veterans have a specific risk etiology due to the cultural context of their working environment, which is based heavily on teamwork and cooperation (Center for Suicide Prevention, 2014). Given this, it must be recognized that Veterans should have specific and unique treatment options.

Increasing data shows the viability of working alongside service dogs (SDs) in the

treatment of Veterans suffering from post traumatic stress disorder (PTSD) and substance use harms – two of the strongest indicators of suicidal risk (Gillet & Weldrick, 2015; Nock, Deming, Fullerton, Gilman, Goldenberg, Kessler, McCarroll, McLaughlin, Peterson, Schoenbaum, Stanley & Ursano, 2013; Williamson, Dell, Osgood, Chalmers, Lohnes, Carleton, & Asmundson, 2021). Despite this growing body of work, there is still a dearth of meaningful studies speaking to the important role that animal-assisted intervention (AAI) may play in reducing overall suicidal risk. As such, my thesis will explore the human-animal bond (HAB) as it pertains to Veterans working along SDs to better understand how this interaction may affect overall suicidality - a task I will do by utilizing the specific conceptual framework of “mattering.”

1.2 Overview & Road Map

Mattering is the human need to feel important or significant in the eyes of others (Flett, 2018). Mattering is a construct that has been used to examine feelings around suicidality, but it has never been intentionally applied to the context of military Veterans. Further, it has never been applied in a way that transcends species (to my knowledge), such as assessing how it may apply to dimensions of the human-animal bond. Using a mattering conceptual framework, this qualitative study is a secondary analysis of data originally collected through an exploratory, patient-oriented, time-series research design to assess the substance use activities of Veterans working alongside SDs through a national training program, AUDEAMUS.

My results show that all seven components of the mattering framework are present in the interactions between Veterans and their SDs, with the SDs providing attention, importance, dependence, ego-extension, appreciation, individuation, and noted absences to make the Veterans feel this relationship was of major significance to their lives. I acknowledge the Veterans believe that feelings of mattering experienced through the HAB should not be

compared to their past life experiences, where high levels of mattering existed in the military working context. Given the multitude of traumas and life changes that have occurred for the Veterans since leaving service and returning to Canada, I also acknowledge that each Veteran has unique experiences – both personally, and in respect to their relationship with their SD.

Important, however, is the finding that the HAB had a synergistic impact on a reduction of many indicators of suicide risk, such as depression, social isolation, and substance use, with the SDs being reported by the Veterans as a direct catalyst in reducing overall suicidality. Further, this relationship acted as an anchor to provide feelings of hope and an overall optimism where the SD was understood as a bridge that encouraged “healing” and post-traumatic growth. Nonetheless, challenges were also experienced by the Veterans: social stigma around SD use, financial costs, and stressors related to ongoing training challenges were issues that accompanied this otherwise positive dynamic.

Overall, the recognition of the unique significance that exists because of the HAB among the Veterans and their SDs in this study is a key step in enhancing mattering as a valuable construct for future suicide prevention activities, while also illuminating that mattering can exist between humans and canines. In addition to the direct and important social impact the SDs supply, the findings of this study also extend our understanding of how the presence of a SD is a complementary approach in supporting a Veterans’ overall wellness and trauma recovery. With the interactions between a Veteran and SD being highly dynamic, interdependent, and reciprocal, this work also challenges future researchers to recognize the importance of animal welfare in any animal-assisted intervention or activity, with equal respect to the fact that mattering may mean different things to different individuals. As an important note, animal welfare is not a factor being directly examined in this study, but the data used does come from an organization that has

strong policies and procedures for ensuring the welfare of their SDs throughout the matching and training process. Given the reciprocal nature of the interactions that may occur throughout any AAI, the welfare of the animal must always be considered and should be a central consideration throughout all research activities.

This thesis will begin with a literature review that covers sociology's history with suicide research, other disciplinary considerations when approaching suicidology, and current data pertaining to suicide risk among Veterans, followed by an overview of the benefits of AAI and the available data on the benefits of Veterans working alongside SDs. Following the literature review, I will introduce my theoretical approach - critical suicidology - and discuss the conceptual framework I am utilizing for my analysis: mattering. I will then present my research questions, my qualitative data thematic coding methodology, and the analytic strategy for analysis. My research findings and results on the themes of suicide risk reduction, mattering, and hope as existing through the human-animal bond will then be presented, followed by a discussion on the significance and impact this study, as per the benefit of SDs acting as a unique form of social support in suicide prevention activities. The results of my study indicate that mattering – which has previously only been explored between humans – can exist on a human-canine basis and that SDs must be recognized as a potential complementary treatment for reducing suicidality among Veterans. I will close with a discussion on limitations of my study, and future avenues or directions for this area of research.

1.3 A Note on Positionality of the Researcher

I came into the world of suicide research through a multitude of personal and professional experiences: first, as a survivor of suicidality in my late teens which was spurred by a multitude of traumas at the hands of medical professionals; second, in losing a very close friend to suicide

(despite her repeated, eager attempts to seek psychiatric treatment and professional help); and third, in working in pediatric psychiatry as an assistant and coordinator for an eating disorder clinic. Here, each day I dealt with young women who were suicidal, and I would frequently receive phone calls from family members in distress relaying that they felt their daughters were being failed by the solely biopsychiatric and pharmaceutical interventions being offered to them. This was a primary motivator for my return to university, namely: to learn more about, and work within, suicide prevention.

This goal was further strengthened after being hired by Dr. Yvonne Bohr in her Psychology Lab at York University in Toronto where I was a research assistant on a four-year CIHR project focusing on Inuit youth suicide prevention in Nunavut. Here, I learned about the importance of intergenerational trauma, adverse childhood experiences, and the social and cultural variables that must be addressed to adequately prevent suicide. I was also introduced to the concept of “mattering,” which was at the core of all of our projects: each research activity we did with the youth had the goal of promoting and instilling a sense of personal significance, and we practiced daily dialogues with one another to remind everyone that they did *matter*.

Of note, many of the individuals who have struggled with self-harm (such as substance use harm and intentional self-injury) or suicidality and with whom I have interacted throughout my life found solace in their pets. I speak to this same experience: my companion dog of 15 years, Sparky, was of great comfort to me while enduring my parents divorce in my early childhood. Later, I felt my cats were the only emotional supports I had after experiencing a major back injury while also enduring the immense stress of living alone without social connections in Toronto as I tried to finish my undergraduate degree. In all my experiences to date, the individuals whom I have met who have endured immense personal suffering have all had an

appreciation for how animals have had a profound impact on their own personal “healing” and ability to navigate stress.

This insight about the important role animals play for those who have endured hardships was further solidified when reviewing a document produced by the Saskatchewan Advocate for Child & Youth that focused on the voices of young, Indigenous people in Northern Saskatchewan that were being interviewed for a suicide awareness campaign. These youth indicated their pets were the single largest social support they felt they had. My original thesis was meant to explore this line of thought further by visiting with Saskatchewan Indigenous youth and the important role that pets play in their mental health, but due to ethical concerns around speaking to youth directly about suicidality, and the arrival of the COVID-19 pandemic beginning in early 2020, I did not know if conducting this research in Northern Saskatchewan would be a possibility.

Given this, I took time to contemplate who else I knew that felt animals played a large role in reducing their mental distress, and I was reminded of my active military and post-service Veteran friends who said they simply would not be alive if not for the aid of their service dogs. My supervisor, Dr. Colleen Dell, had an existing and growing research interest in service dogs, so I was able to quickly transition to start a new project that would still allow me to better understand the complex interplay of mattering and animal-assisted intervention as it could potentially impact suicidality.

Chapter 2 – Background & Literature Review

2.1 Sociology’s History with Suicidology

Durkheim (1897) initially described suicide as “all cases of death resulting (in)directly from a positive or negative act of the victim himself, which he knows will produce this result”

(p. 44). This definition is taken from Durkheim's prolific, *Suicide: A Study in Sociology*. The text provides a rich case study of suicide and is one of the discipline's first in-depth exploration of the topic. Though Durkheim is frequently reported as the first to explore suicide from a social science perspective, Wray, Colen, and Pescosolido (2011) provide a succinct historical overview on the sociology of suicide. These authors outline the various shifts in sociological attention on the topic, splitting it into three distinct periods of interest: pre-Durkheim, Durkheim, and post-Durkheim. Notably, the authors indicate that contemporary sociological studies of suicide continue to be "framed and understood as a problem faced by individuals, even when social and contextual factors are acknowledged" (Wray et al., 2011, p. 506). Borrowing from substantialist doctrine, individualism prioritizes the social actor as an individual unit, divorcing them from the influence of culture, systems, or society during analysis (Go, 2016). This type of individualism is key to my discussion in pages to come and is a theme to be mindful of as we delve further into this research project.

2.1.1. Pre-Durkheimian Suicidology

Beginning in the mid-1800s, Quetelet and Morselli were some of the first to collect and analyze large bodies of suicides statistics; their systematic and geographic analysis of patterns determined that forces far beyond the individual should be of significant interest in predicting suicide (Wray et al., 2011). In 1881, Masaryk theorized that increasing levels of education, and the abandonment of traditional ways of living and/or thinking, enabled suicide to be received as a rational solution to individual problems (ibid.). Similar to Durkheim's forthcoming work, Masaryk suggested that varying forces of modernization should be a primary suspect in growing suicide rates. Shortly after, Tarde (1895) explored how negative emotions and meanings were produced in individuals during dramatic social change, making some groups more vulnerable to

suicide than others. Markedly, Tarde's theory was one of the first to openly dismiss common biomedical explanations for suicide. Tarde's exploration of copy-cat suicide, a phenomenon displaying how certain geographical pockets produce series of chain-reaction suicides in a given time and place, led him to privilege social explanations.

2.1.2 Durkheimian Era of Suicidology

Following Tarde, Durkheim developed his rich fourfold typology for suicide. He developed this by assessing the different types of relationships that exist between the actor and the society in which they were embedded (Durkheim, 1897). Egoistic suicide was a result of feeling socially isolated, with an individual feeling they have no place in society. Altruistic suicide was when individuals and/or groups were so incredibly integrated that sacrificing one's own life was perceived to be for the benefit of the others with whom they were close. Anomic suicide resulted from a breaking down of social equilibrium, with moral confusion and a lack of social direction reigning in the individual's life. Lastly, fatalistic suicide was the result of an individual feeling they were so overly regulated by oppressive forms of discipline that their sense of autonomy was taken from them.

Importantly, Durkheim's typology was not developed to explain *why* individuals decide to take their own life, but to explain how the structuring of different societies results in different suicidal acts – thus illuminating the importance of social context. Key to this discussion are two primary variables: integration and regulation. Here, integration refers to a sense of belonging, inclusion, care, and love – essences that can be enabled or inhibited by social ties. Durkheim argued that well-integrated groups were cohesive, creating stable and durable social relations. Healthy integration enabled individuals to feel supported in their own lives, ultimately reducing their vulnerability to suicide in periods of distress. Durkheim's (1897) text concluded that,

“suicide rates vary inversely with the degree of integration of the social groups to which the individual belongs” (p. 224), and the influence of integration revolved predominantly around family, religion, and political domains.

Regulation is an additional vital factor. Durkheim (1897) explained regulation as the monitoring, oversight, or guidance that can be provided by social ties. States of despair can occur when an individual lacks moral guidance or external restraint; without these, an individual’s desires and expectations are difficult to conceptualize or manifest, resulting in feelings of frustration and/or personal failure. Durkheim showed that over- and under-regulation – as well as over- and under-integration – can produce suicide within a given group. For example, egoistic suicide can occur with low levels of integration, and altruistic suicide with incredibly high levels of integration. Thus, Durkheim’s suicide typology solidified through his explanation of how extremes in the social structure could result in certain suicidal tendencies.

Importantly, Durkheim (1897) indicates the individual’s personal needs, as well as demands of their broader group, must both be met; this is only possible with a healthy balance of integration and regulation, at which point suicide vulnerability diminishes. Durkheim also shows low levels of *anomie* (similar to modern-day feelings of alienation) indicate high levels of social stability in society. To provide a contemporary example in the Canadian context, Indigenous communities with a strong sense of culture as pertaining to self-governance, ownership, and control over services such as health care, policing, and education report lower suicide rates, if any at all (Mehl-Madrona, 2016; Chandler & Proulx, 2006). Culture, here, is conceptualized as the beliefs, behaviors, language, customs, norms, organizations, or institutions common to members of a particular group or society (Helman, 2007). As Hatcher, Crawford, and Coupe (2017) point out, colonization enabling *anomie* is a notion that resonates globally among

Indigenous populations: the highest rates of suicide are found among groups who have experienced most-recent colonization. Thus, oppressive practices that have been present through colonization activities undoubtedly breed alienation. Military Veterans also frequently report feelings of alienation, possibly explaining why they are such a high-risk group for suicide, and why *anomie* should remain relevant to suicide prevention discussions (Junger, 2016).

2.1.3 Post-Durkheimian Suicidology

Following the Durkheimian era, sociologists continued to explore elements of social integration as it pertains to suicide, but often under different names such as social isolation, social cohesion, or social support (Wray et al., 2011). Alternative areas of focus outside of social factors began to prevail in the mid-1950s, when sociologists borrowed heavily from other disciplines. Henry and Short (1954) were inspired by psychoanalytic theory to hypothesize that suicide was an outcome of violent aggression, drawing heavy emphasis on psychological variables at the individual level. Gibbs and Martin (1964) followed by dismissing Durkheim's integration/regulation hypothesis; they indicated suicide was a result of conflict based on intersectionality. They posited that when an irresolvable conflict ensued revolving around negative social circumstance – such as sex, age, occupation, and marital status - individual suicide rates increased.

Additionally, Douglas (1967) took a more interpretivist approach, indicating that most sociological perspectives in suicide failed to account for social and cultural meanings behind suicide. Douglas was critical of quantitative approaches to understanding suicide altogether, calling for a typology that viewed “suicidal actions as socially meaningful actions” (1967, p. 255). In subsequent studies, most sociologists ignored the symbolic interactionist concerns raised by Douglas, and sociology's take on suicide entered a “period of disciplinary confusion and

uncertainty” (Wray et al., 2011, p. 31). With Durkheim’s original focus on social and structural factors beginning to dissolve, this allowed for other disciplines to take a foothold. Though beyond the scope of this paper to explore fully, it is necessary to briefly acknowledge the contributions other disciplines have brought to the topic of suicide in a post-Durkheimian era, as these contrasting perspectives have deeply influenced contemporary suicide prevention, where a discourse exists that infrequently acknowledges ecological, cultural, and social factors as potentially potent causal pathways.

2.2 Additional Theoretical Considerations

2.2.1 History

Historically, understandings of suicide were rooted in criminological and religious discourse, as exemplified through the tradition of stating that someone has “committed” suicide, indicating a criminal behavior (McDonald, 1989). McDonald (1989) provides an overview for how religious ideas also drove suicide discourse from the late-17th to early-18th century, where suicide was perceived as a sinful act orchestrated by the devil. McDonald explains that a more merciful approach to suicide was adopted so coroners could help families evade forfeiting their property to the Crown - the original punishment for self-killing. Laypersons began to plead that those who died by their own hands were suffering from *melancholia* (i.e., depression) and, as increasing secularization took hold in the post-Enlightenment Era, this more rational interpretation of melancholic malaise was adopted by medical professionals. This transformation allowed for suicide to be reconceptualized as an irrational behavior caused by a chemical disequilibrium of one of the four humours in the body, displaying how even historical accounts support the notion that suicide is ultimately caused by biologically based mental “illness.” In

contemporary times, this has evolved further where, in certain countries, severe forms of depression, are included as a viable reason to enable medically assisted dying (Davis, 2019).

2.2.2 Psychology & Psychiatry

Psychology and bio-psychiatry (collectively to be referred to as the “psy disciplines”) have had immense impacts on the way suicide is approached in research activities and prevention measures, particularly how suicide is framed as predominantly stemming from mental illness. Psychological explanations of suicide began flourishing in the 1930s in tandem with the rise of bio-psychiatry and the use of pharmaceuticals for psychiatric purposes. Here, psychodynamic mechanisms and psychological explanations focused on individuals, their internal psyche, emotional conflicts, and primal drives (Wray et al., 2011; White et al., 2016).

As research has increased from the psy disciplines, recent attempts have been made to explain the neurobiological evidence behind suicide. Joiner, Brown, and Wingate (2005) recently attempted to explain this through serotonergic differences (serotonin is thought to regulate moods by enabling happiness and reducing depression) between suicidal individuals and the general population. In their review of the neurobiology of suicidal behavior, they strongly support the widely accepted statistic that those diagnosed with a diagnosable mental illness end up dying by suicide. However, even within the literature that indicates a correlation between mental disorder and suicidal behavior, there is frequent acknowledgement that this position does not fully explain suicide and should not be objectively accepted. This is something which suicide researchers must be especially mindful of considering no explanation yet exists for “why most people *with* mental disorders do not attempt, or die by, suicide” (Joiner et al., 2005, p. 289); however, a widely accepted and taken-for granted statistic indicates approximately 90% of individuals who kill themselves had a diagnosable mental illness at the time of death (Arsenault-

Lapierre, Kim, & Turecki, 2004).

I must note that prevailing psy discipline models in suicide have limitations, and pre-existing studies that claim people who take their own lives based of a myriad of psychological/emotional reasons should be analyzed critically. These observations are frequently concluded *after* individuals have died, meaning the validity of data can be unfounded when derived from family or friends through psychological autopsies (Hjelmeland & Knizek, 2017; Tempier, 2016). A psychological autopsy is a method of inquiry that combines medical records, police reports, and in-depth interviews with family and friends of an individual who has died by suicide (often, with the support of a medico-legal investigation) to paint a vivid picture of why someone took their life post-mortem (White et al., 2016). This form of data collection has been repeatedly criticized for methodological limitations such as the complexity of confounding variables, concerns with information gathering, and its bioscientific reductionism wherein psychiatric labels outweigh the secondary (and possibly more important) contextual factors affecting the individual (Hjelmeland & Knizek, 2017). Despite this drawback, knowledge from the psy disciplines continue to be the leading authority on suicide.

2.2.3 Anthropology

In line with cultural norms and social integration, some of the most extensive studies on suicide come from the field of cultural anthropology and are too detailed to list in full. The work of Chu, Goldblum, Floyd, and Bongar (2010) is at the intersection of medical anthropology and medical sociology, and their research suggests that culture affects the types of stress and level of stress-severity one can endure that may lead to suicidal behavior. Overall, the authors suggest culture should be viewed as *the* leading factor expressing and/or manifesting suicidal thoughts, intent, plans, and attempts (Chu et al., 2010). However, this cultural approach can become futile.

Kral (1998) indicates that suicide *originates* solely at the individual level, but one must analyze cultural narratives and their impact on groups from a top-down approach to make sense of how they are internalized at the micro-level. Therefore, the dynamic relationship between an individual and the group in which they reside must be accounted for, creating a complex web of theoretical understanding where the social world remains most relevant.

2.2.4 Synthesizing These Approaches

In review of the various theoretical positions I have investigated regarding possible explanations of suicide - coming from the fields of history, psychology, psychiatry, anthropology, and sociology – only two overlapping categories appear to be identified within most cases of suicide as understood by each discipline. First, unregulated impulse control enables self-harm behavior (as understood in psy disciplines through the identification of “mood disorders” or so-called “problematic substance use disorder”), and second, the individual has a propensity to deep psychological pain. This latter factor should not be understood as an exclusively physiological phenomenon (as is often done in the psy disciplines); suffering and distress are the effect of a myriad of factors, environmental situations, adverse childhood experiences, and social circumstances that most frequently stem from feelings of social isolation, disconnection, alienation (*anomie*), and/or feelings of hopelessness, burdensomeness, and ineffectiveness (White et al., 2016).

Given this acknowledgement, the most compelling text I found that counters the dominant biopsychiatric view comes from Shneidman (1996), a psychologist who coined the term *psychache* as the “hurt, anguish, soreness, aching, psychological pain in the psyche, in the mind” (p. 1). Shneidman takes great care to convincingly correlate suicide with variables such as age, sex, and race, indicating that psychiatric diagnoses simply miss the mark. Shneidman argues

that medical labels and psychiatric discourse need to be divorced from discussions on suicide on the basis that, “all affective states such as rage, hostility, depression, shame, guilt, affectlessness, hopelessness are relevant to suicide *only as they relate to unbearable psychological pain*” (1955, p. 147). This explanation of psychological pain remains relevant given its similarity to the forthcoming “moral injury” that will be discussed in the next section within the context of military Veterans at risk for suicide.

2.3 Military Veteran Suicide

2.3.1 “At Risk” for Suicide

The term “at risk for suicide” indicates someone who may be at an increased risk for suicidal ideation or thoughts, self-harm behavior (such as an increase in substance use, or intentionally self injurious acts), and/or suicide attempts (Rudd, Berman, Joiner, Nock, Silverman & Mandrusiak, 2006). Working from a risk model, researchers can better understand the variety of factors that individuals might address within their internal or external environment to decrease their potential risk. The strongest at risk indicators for any population are, arguably, feelings of hopelessness, which are inherent to a diagnosis of depression; use of substances, whether alcohol or prescription medication for pain or stress management; and intense emotional pain or negativity, frequently present with a diagnosis of post traumatic stress disorder (PTSD) (Beck, Steer, Beck, & Newman, 1993; Wilcox, Conner, & Caine, 2004; Zaheer, Links, & Liu, 2008).

The three aforementioned factors are frequently present in military populations, and due to the likelihood of increased exposure to trauma through combat or other highly stressful working situations, many post-service Veterans have been diagnosed with PTSD (Nock et al., 2013). Symptoms may present in a variety of ways such as re-experiencing a witnessed trauma

(through flashbacks or nightmares), avoidance behavior (attempts to evade thoughts, feelings, or situations connected to the trauma), negative alternations in mood or thinking (negativity, experiencing a distorted sense of self or feelings of isolation), increased states of arousal (hypervigilance, easily startled, or difficulty concentrating), and/or dissociation (Staggs, 2018).

2.3.2 Moral Injury

An additional increasing risk factor is that of moral injury (MI), where acts experienced in service may transgress a Veterans' existing moral code, leading to the development of "moral injury." Most broadly, MI can be understood as the "psycho-spiritual consequences of events that seriously violate one's core moral beliefs and expectations" (Smith, Houle, & McKenna, 2020). Specifically, the experience of MI has been defined as occurring from any event where an individual fails to prevent, bears witness to, perpetuates, or learns about acts that violate held moral belief systems leading to complex feelings of distress or emotional pain (Levi-Belz & Zerach, 2018). Examples of a potentially morally injurious event can be direct or indirect, such as making a decision leading to the harm of others, the deliberate or inadvertent killing/wounding of another, harm to self or others as a result of following orders, and/or feelings of perceived betrayal (Smith et al., 2020; Levi-Belz & Zerach, 2018).

While the core features of MI have failed to meet consensus within the literature, MI commonly manifests as guilt, shame, reduced sense of meaning, or a loss of sense of self and/or trust in others; secondary features such as anxiety, anger, self-harm and social withdrawal are also often present (Smith et al., 2020; Jamieson, Usher, Maple, & Ratnarajah, 2020). Here, please note the strong similarity between the core features of MI alongside Shneidman's "*psychache*" that I brought in forth the previous section. Both of these experiences frequently combine into an internalized state of being a "bad" person and may lead to increased instances of

social alienation and isolation, where feelings of unworthiness potentially reduce attempts at help-seeking behavior.

Recently, the development of MI from combat events has been shown to lead to other psychopathologies and heightened poor mental health outcomes, such as increased suicidal ideation and behavior (Levi-Belz & Zerach, 2018). Almost 60% of Veterans who have been diagnosed with PTSD are also recognized to have five or more symptoms of MI, indicating the potential presence or overlap of both must be addressed within suicide prevention (Jamieson et al., 2020). While debates persist about whether MI should be included in the DSM as syndemic to or a separate “disorder” from PTSD, the key takeaway is that emotional pain and suffering associated with morally injurious behavior should be understood as a common natural reaction to a distressing experience that must be addressed in intervention.

2.3.3 Risk and Protective Factors for Military Veterans

The presence of moral injury, and/or a formal diagnosis of PTSD, is often difficult to treat given its varying and complex manifestation, and many may turn to substance use post-deployment to manage the associated feelings such as anger, social isolation, or low-self worth (Taylor, Edwards, & Pooley, 2013). This fact also continues the debate on the utility of the DSM: if we are to consider the increase of substance use harms among those suffering from PTSD, which (in this context) is used as an aid for the management of other unpleasant symptoms, it should not necessarily be considered a disorder in and of itself. An existing diagnosis of PTSD, alongside substance use, puts *any* individual at a heightened risk for suicidal thoughts or behavior, and Veteran populations, specifically, are known for having the strongest association of suicidal behavior with alcohol use disorder (Maguen, Madden, Cohen, Bertenthal, Neylan & Seal, 2015). A Veteran’s suicide risk can be further increased due to easy access to

firearms, occupational stress injuries, difficult reintegration into civilian life, increased psychosocial stressors or relationship difficulties at home, a loss of collegial social support that was readily available in the active service context, and instances of chronic pain or functional limitations as a result of physically demanding and/or dangerous in-service activities, (Rodgers & Suicide Prevention Resource Center, 2011; Thompson & Veterans Affairs Canada, 2010).

Alternative to risk, many things can act as protective factors against suicide, but limited research has been conducted on effective protective factors when compared to risk. Current evidence suggests shorter or less frequent deployments along with adequate and easy access to mental health treatment can be effective, but these are not always possible and high levels of stigma remain with respect to accessing care through a facility (Center for Suicide Prevention, 2014). Additionally, strengths-based psychological constructs (e.g. the felt sense of life purpose, improved emotional intelligence, increased personal autonomy, feelings of personal significance, and the presence of resiliency), and the presence of strong social supports (e.g. religious affiliation, responsibility of/for one's family, or ongoing unit support and work culture cohesion) are gaining traction as viable treatment routes (Thompson & Veterans Affairs Canada, 2010). The full list of recognized risk and protective factors for Veterans can be found in Appendix B, but further empirical research is needed for this vulnerable population - especially regarding innovative prevention measures based on Veteran's unique risk factors.

2.4 Animal-Assisted Intervention

In light of the complex and interrelated factors at play when approaching suicide research, I recall a suggestion by Douglas (1967) for a more interpretivist approach; suicidal outcomes need to move away from an individual emphasis and be understood as *socially* meaningful actions. A shift in such thinking is possible by looking more broadly at how social

relations affect overall wellness, particularly as they may exist outside the bounds of human-to-human connections. Here, I refer to the human-animal bond (HAB) which is the “mutually beneficial and dynamic relationship between people and animals that is influenced by behaviors that are essential to the health and wellbeing of both. This includes, but is not limited to, emotional, psychological, and physical interactions of people, animals, and the environment” (American Veterinary Medical Association, nd, para. 2).

2.4.1 One Health & Biophilia

Importantly, a One Health framework openly acknowledges the multilateral connection between humans, animals, and the environment, where our connection to natural elements can be perceived as relational to one’s broader connection to the social world (e.g. our immediate community, the global environment, and culture wholly) (Chalmers & Dell, 2015; Gullone, 2000). Similarly, the biophilia hypothesis developed by Wilson (1984) summarized *biophilia* as a humans’ innate focus and appreciation of the natural environment. He hypothesized that humanity’s reliance on nature transcends beyond a purely physical dependence (i.e., resource extraction and use) to also include aesthetic, intellectual, cognitive, and spiritual satisfaction or fulfillment that can be gained by interacting with life-like processes (Wilson, 1984). This “natural element” is akin to the social integration argument previously brought forth by Durkheim. Gullone (2000) also explains that, as humans become more removed from natural processes across generations, biophilic benefits are not replaced by more modern versions that are potentially enabled by technological advancement through the provision of new, artificial “natural” environments found on screens or while in attendance of a zoo. Given this, a One Health approach should be central to wellness-building activities, which is also why the concept of *zooevia* should be key.

Introduced by Hodgson and Darling (2011), zooeyia is understood as the “positive inverse of zoonosis” (p. 189), implying the benefits to human health that can occur from interacting and/or bonding with animals. Zooeyia is a concept that lends well to more holistic approaches to wellness, as animal companionship is beneficial to human health in many ways: it helps build social capital, provides social support, enables belonging and a sense of security while also allowing animals to be an active participant in treatment plans by motivating healthy behavior like frequent exercise (Kosteniuk & Dell, 2020; Hodgson & Darling, 2011; Williamson, Dell, Chalmers, Cruz, & DeGroot, 2021). Zooeyia is a central base that helps make sense of the positive dynamic that can exist between a Veteran and SD, as detailed throughout the findings and discussion portion of this thesis.

2.4.2 Animal-Assisted Intervention for Improving Wellness

Kruger & Serpell (2006) explain that the integration of animals into therapeutic or unstructured wellness activities can come under a variety of names, but I will refer to any intervention or activity that involves an animal – in an assistive capacity to a human – as an “animal-assisted intervention (AAI).” Ample research findings show how the presence of animals can play a positive role in helping children meet development goals, with the implementation of AAIs reducing a wide array of symptoms pertaining to mental distress for both youth and adults (Berget & Ihlebaek, 2011; Bryant, 1985; Dell, Arratoon, Lapointe, & Lohnes, 2017; Hosey & Melfi, 2014; Husband et al., 2020; Peacock, Chur-Hansen, & Winefield, 2012; Poresky, 1996; Strand, 2004; Wells, 2009).

The inclusion of animals in psychological treatment is not new or uncommon, with the first reported occurrence coming from the late-18th century when animals were brought into psychiatric institutions to encourage and increase socialization among patients (Kruger &

Serpell, 2006). Multiple studies show animals can help humans fulfil the beneficial connection to nature brought forth by Wilson and Gullone, they can act as a secure attachment figure or primary social support, and provide a sense of purpose to our lives, fulfilling the human need to feel significant – all of which are currently recognized protective factors in existing suicide research (Bryant, 1985; Fine 2015; Marshall, 2001; Sable, 2013; Wille & Ravens-Sieberer, 2008; Zilcha-Mano, Mikulincer, & Shaver, 2011).

More specifically, the utilization of AAI for the treatment of trauma is increasing. Dell, Chalmers, Bresette, Swain, Rankin, and Hopkins (2011) were able to identify the positive value of incorporating horses in therapeutic settings for Indigenous youth struggling with substance use harms – a population at extremely high risk for suicide. O’Haire, Guérin, & Kirkham (2015) also provide a systemic review indicating AAI enables those suffering symptoms of lived trauma to have improvements in the following areas: acting as social facilitators to connect individuals to reduce feelings of isolation and loneliness; reducing symptoms of hyperarousal, anger, anxious thoughts, emotional numbing, and depression while improving positive emotions; allowing for the ability to stay present; reducing fear of public spaces; and aiding in the production of oxytocin. Of these concerns listed, many are relevant to military Veterans today, which is why service dogs (SDs) have begun to be implemented (Taylor et al., 2013)

2.4.3 Service Dogs for Military Veterans

Members of the military have a long history of working alongside animals. Considerable anecdotal evidence shows animals are integral parts of combat units; they are a source of pride in the form of mascots, have specific jobs and tasks that assist service members, can provide stress relief and increase humility during challenging periods, and are now being associated with an easier transition back to civilian life post-service (Chumley, 2012; Taylor et al., 2013). The

accompaniment of SDs to military Veterans is a relatively new area of research but builds directly off the surging evidence base showing that animals – as companions or in assistance roles – positively affect the management of symptoms associated with mental distress and can improve overall wellness (Bergert & Ihlebaek, 2011; McConnel, Brown, Shoda, Stayton, & Martin, 2011; Rossetti & King, 2010).

To clarify, SDs (sometimes referred to as psychiatric service dogs or assistance dogs) are domesticated canines that live within a home as a companion animal but are highly trained with a variety of skills, meaning they can complete tasks meant to help one individual based on their specific needs (whether physical, mental, or emotional) (Serpell, Coppinger, Fine, & Peralta, 2010). Service dogs are not to be confused with therapy dogs, which are companion animals that are trained to be highly social and interact with large numbers of varied individuals in public spaces or facilities (such as a care home, university, or hospital) to provide love, comfort, and support to strangers (Dell, Williamson, Carey, Cruz, Gibson & Pavelich, 2021). More specifically, Veterans working alongside SDs who are specially trained to help manage PTSD through certain assistive behaviors (for example, waking someone out of a night terror, acting as a guard while out in public, helping self-regulate while experiencing rage or distress) report this complementary treatment results in increased calmness, more positive affect, and reduced feelings of nervous system hyperarousal and states of hypervigilance (Rodriguez et al., 2020).

The One Health & Wellness office gave a briefing to the House of Commons in Canada on the benefits of SDs for Veterans with PTSD and concluded SDs should be recognized as an AAI that is a strong source of personalized support and complementary treatment for improving Veterans' overall wellness (Dell & Chalmers, 2021). While some literature recognizes the SD is inherently an intervention because of the tasks that makes up the SD job, only recently has the

human animal *bond* been recognized as integral to the therapeutic effects garnered through the SD and Veteran dynamic (Dell & Chalmers, 2021).

The management of PTSD and substance use harms through the implementation of AAI is still in the early stages of empirical research, but existing studies show promising results (Gillet & Weldrick, 2015; Husband, Ahmed, & Dell, 2020; O’Haire & Rodriguez, 2018; Stumbo & Yarborough, 2019; Taylor et al., 2013; Yount, Olmert, & Lee, 2012). Gillet’s (2015) work explores the available literature of SDs where he acknowledges three specific areas of benefit: biomedical, psychological, and social. Examples of direct effects are improved physiological markers, such as reduced anxiety and blood pressure, and increased oxytocin (the “feel good” hormone) (Nepps, Stewart, & Bruckno, 2014). Indirect effects are implicit in every day social interactions that can positively impact overall health outcomes: for example, walking your dog to get exercise and reducing instances of social isolation or loneliness (Zilcha-Mano et al., 2011). Additionally, the SDs can improve the quality of life for military Veterans returning from deployment by +180% (O’Haire et. al, 2015).

Inherent to most PTSD treatment is the stigma associated with a service member accessing treatment for internalized distress or emotional pain. The utilization of SDs provides a potential treatment route with relatively little stigma attached, and an option that is also seen as acceptable among Veterans themselves (Taylor et al., 2015). Importantly, “Veterans with service dogs, compared to those without, reported reduced PTSD symptoms, lower levels of depression, and improved quality of life and social functioning” (Stumbo & Yarborough, 2019, p. 118). The proven reduction in PTSD symptoms, improved depression, and increase in overall quality of life are necessary elements in suicide prevention given the strong correlation between suicidality and the affective states inherent to PTSD listed in the previous section (Smith, Mota, Tsai, Monteith,

Harpaz-Rotem, Southwick, & Pietrzak, 2016). Crucial in Taylor et al.'s (2015) study, SDs provide companionship to their Veteran handlers and become surrogate attachment figures within their family unit; this secure bond is similar to those that form between humans and is one of the most important factors in preventing suicide. It is this human-animal bond (HAB) that will become the focus of my study by assessing how it relates to suicide risk and potential recovery.

2.5 Conclusion

This brief overview of the varying theoretical positions for making sense of suicide was necessary, as it is readily apparent that the research approaches coming from models within the psy discipline – models that have an individual bias and are privileged over other more culturally relevant or social conceptualizations – still dominate today. Despite this, ample evidence displays how social support – in the form of animal-assisted intervention – has a strong role to play in promoting wellness. Given this fact and the high risk for suicide in the military Veteran populations, a logical suggestion is that the relationship between a human and their companion animal may serve a purpose in mediating overall suicide risk.

The literature on AAI and suicide has not yet overlapped in a meaningful way; therefore, the primary aim of my research is to better understand the complex social significance SDs have for military Veterans who are living with distressing psychological symptoms - such as PTSD, active substance use, and/or depressive and anxious thoughts - that may increase their risk of suicide. Given this, the following chapter will introduce my theoretical orientation and conceptual modeling for my guiding research question and interest.

Chapter 3: Conceptual Framework & Research Question

3.1 A Social Constructivist Approach within Critical Suicidology

This chapter will first outline my primary theoretical orientation, critical suicidology,

which is heavily influenced by sociological theory, as explained through a discussion on social constructivist and Foucauldian thought. I will also include a discussion on the discursive knowledge formation within current suicidology research and the cultural dimensions that should be considered to support more holistic approaches to suicide prevention, and to counter the prevailing medicalized discourse around suicide that is deeply rooted in individualism. Following this, I will present a brief literature review on the sociological construct of mattering and its significance to suicide research. Lastly, I will touch on the additional conceptual considerations that will become relevant to my analysis: the foundation of One Health, and the concept of hope. I will close with a diagram on how these theoretical ideas directly relate to my research questions, where the synergistic and interrelated role of mattering and social support may be displayed through the human-animal bond to affect the experiences of suicidality among the military Veterans working with SDs.

3.1.1 Introducing Critical Suicidology

As discussed in the previous chapter regarding the overview of suicidology, contemporary discourse around suicide is rooted primarily in psychiatric and psychological understandings, with a hyper focus on individual pathology and mental illness discourse. This position is further reinforced by a positivist orientation where quantitative research methodology and its data derivatives are the primary drivers in formulating suicide prevention frameworks. Through my own research, it is apparent that a new public health approach to prevention - which is built around individualization, self-surveillance, medicalization, and bioscientific reductionism - has produced some of the least successful suicide prevention outcomes to date (Pavelich, 2019). I opt to say “least successful” because, despite the massive increase in mental health awareness, education, treatment, and stigma reduction campaigns that are occurring in contemporary times,

suicide rates continue to rise globally (Whiteford, Degenhardt, Rehm, Baxter, Ferrari, Erskine, & Vos, 2013). Although there is now the wide-spread implementation of national prevention strategies in numerous countries, suicide persists at unprecedented rates, and this fact remains particularly true for Veteran populations.

In direct opposition to medicalized approaches, critical suicidology aims to move “beyond seeing suicide as pathological and individual, and challenges an overly narrow scientific view of this complex phenomenon” (Kral, Morris & White, 2017, p. 470). Critical suicidology aims to interrogate contemporary suicidology practices by exploring taken-for-granted understandings through historical, subjective, holistic, political, and sociologically oriented perspectives with a social justice lens. This critical perspective aims to confront the limitations that individualistic, bioscientific, and deficit-based conceptualisations of distress and suffering by reframing suicide as a rational outcome from a multitude of social issues that are an expression of historical, cultural, community, and family disruptions (White et al., 2016). White (2017), a leading critical suicidologist, argues that we must view the self as relation entanglements, meaning that the way we approach suicidology must be interactive and co-constituted, thus justifying the relevance of a sociological lens for exploring this topic

3.1.2 Social Constructivism & Foucauldian Thought

Critical suicidology is heavily inspired by Foucauldian and social constructivist thought. Social constructivism is a theoretical approach employed in sociological studies that explores how claims to what is accepted as an essential or objective truth come to exist through a complex historical web of interactions and power dynamics, wherein one dominant idea privileges all others (Lupton, 2012). Crucial to the social constructivist position is discourse. Foucault’s conceptualization of discourse explores how organizing bodies of knowledge (which can include

rules, regulations, or texts) govern the way we think, speak, or act (Storey, 2012). Since discourse can enable, constrain, and constitute the practices behind how one thinks or speaks, a behavior can be easily socially produced through discursive knowledge (Lupton, 2012). Therefore, social facts become taken-for-granted meanings which are not objective derivatives of any independent reality (White & Stoneman, 2012). Social facts - such as suicide being caused by mental illness - then become accepted stocks of knowledge for use by society. It is rarely acknowledged how it was humans that created this social fact, through an activity based on a complex web of power relations.

Foucault views medical and psychiatric actors as having the powers to label actions as normal or deviant, an exercise that ultimately allows for the control and surveillance of bodies (Foucault, 1972; in Storey, 2006). This idea was explored in depth in his work, *Madness & Civilization* (1965). Medicalization is key here and is best conceptualized by Conrad (2007) as “a problem [or behavior] that is defined in medical terms, described using medical language, understood through the adoption of a medical framework, or ‘treated’ with a medical intervention” (p. 5). By applying medical language and discourse to the topic of suicide, medical professionals, “encourage individuals to change their behavior, to know their risks, [and] are therefore seen as benevolent” (Lupton, 2012, p. 34). However, Lupton (2012) illustrates that the initiatives put forth by doctors are derived from “discourses [that] privilege biological determinism about the brain and how it influences personality and behaviors” (p. 34). This conceptualization is based on self surveillance and risk assessment: any individual can self-monitor and save themselves from suicide if they simply call a crisis-line, which ignores the many structural barriers in accessing help (such as a shortage of available health professionals) or the more complex social aspects that lead to feelings of distress in the first place.

Most data produced in current suicidology emphasizes the role of objective reasoning, descriptive statistics, and scientific understanding as the most “legitimate” way to research suicide, which is why identifying individual risk through psychiatric label classification for the purpose of surveillance reigns (White et al., 2016). Again, a focus upon mental illness and biomedical discourse seems to contribute a disservice to suicide prevention initiatives, as psychiatric intervention - wherein the focus on treating mental illness vis-à-vis pharmaceuticals comes before addressing the underlying distress, like trauma - appears largely ineffective given the previously mentioned increasing global rates of suicide.

3.1.3 Discursive Knowledge & Critiquing the DSM

Social constructivism speaks to the influence and hierarchical dominance that medical and psychiatric actors have in society, which is why I argue that the bio psychiatric reality that exists around suicide has little to do with *understanding* suicide itself. From a sociological position, Foucault (1972) argues that bio-medical and psychiatric discourse have become a regime of truth in society, which is when ideas become accepted and treated as incontrovertible fact as opposed to a product of discourses and authorized ways of meaning-making. Due to the power granted to the biomedical paradigm in the post-Enlightenment era - where positivism and scientific rationality are valued - bio-psychiatric discourse and approaches based on eradicating symptoms of mental illness via prescription medication now dominate suicide prevention initiatives as the essential “Truth.” This position has been enabled due to the authority vested in the medical industrial complex, and it has been enabled via the power of a specific text used by health experts in medicalizing individuals suffering from psychological distress: the Diagnostic and Statistical Manual of Mental Disorder (DSM).

In line with other scholars who comment on the importance of discursive knowledge,

Smith (2010) would indicate that the DSM is a ‘boss’ or governing text: a hierarchical body of knowledge which is positioned to drive institutional procedures, upholds a regime of truth, and drives ruling relations. The text provides actors a context to know about mental health and, ultimately, carry out specific practices based on the book’s authority. This is the case for medical professionals who use the text to diagnose and plan treatment courses for those suffering from so-called “mental illness,” whereby additional documents are organized and constructed based upon the DSM. Such is the case for suicide response manuals, scripts for operators working at suicide crisis-lines, and suicide prevention strategies.

An investigation conducted by Greenberg (2013) successfully unpacked the ostensibly “scientific” evidence behind the DSM. Greenberg did intensive investigation work by conducting numerous expert interviews with those who produced data for the DSM such as leading psychiatrists and therapists. Here, Greenberg illuminated the numerous flaws behind the DSM where repeated evidence was produced to discount the legitimacy of the DSM’s claims, with many of the interviewees admitting that many of the labels currently listed within the DSM are not, in fact, real “illnesses” or “disorders.” This discovery is troubling considering that untreated mental disorder is repeatedly cited as one of the leading causes of suicide (Arsenault-Lapierre, Kim, & Turecki, 2004). This claim is problematic on numerous grounds: it suggests that all suicide is preventable if one accesses adequate psychiatric intervention, and it conditions individuals to conform to dominant bio-psychiatric conceptualizations of suicidal behavior and self harm, an understanding which is discordant for many groups.

3.1.4 Further Considerations on Cultural Constructions of Suicide

Western conceptualizations based in biomedical and/or psychiatric understandings of illness and “mental health” have been aggressively spread globally; at times, these replace the

varying cultural, social, and personal understandings that are assigned to or expressive of particular suicidal behaviors (White et al., 2016). “Mental health,” in particular, is a widely used term with no singular understanding or definition, yet there is a widespread acceptance of how “poor mental health” equates to the same as “mental illness.” This regime of truth continues to trump alternative spiritual or social interventions that exist in suicide prevention, and it both contradicts and fails to consider much of the existing literature regarding success in reducing suicide rates outside of the health care institution context.

For example, the biologically reductionist view is divergent with some Indigenous conceptualizations of suicide; many Indigenous groups view suicide as a result of cultural wounds incurred from colonial activities, not because of a mismanaged disorders originating at the chemical level (Barker, Goodman & DeBeck, 2017; Pavelich, 2019). Generalizable findings, wherein risks are identified and addressed, wrongfully assume that there is a shared system of meaning behind suicide, with little consideration given to experiential conditions outside the dominant, medicalized suicide discourse. If we are to take the Indigenous understanding – which views suicide as an expression of collective suffering, where the self is understood in relation to spiritual, cultural, communal, and familial contexts - it is easy to see why interventions based in community projects that address the broader, intergenerational social system are seen as more valuable and effective compared to initiatives run by health care providers on a strictly medicalized model (White et al., 2016).

Like the Indigenous conceptual framework, existing data shows the validity of AAI or SDs in psychiatric settings (as detailed in Chapter 2). The implementation of animals to increase socialization and lessen symptoms associated with PTSD have shown benefit and may directly correlate to a reduction in suicide risk; this is an intervention focusing predominantly on social

aspects, speaking further to the potential disconnect of shared meanings among existing, mainstream prevention initiatives (Kruger & Serpell, 2006; Taylor et al., 2013).

Junger's (2016) ethnographic work with Veterans suffering from PTSD explores this idea, where unidimensional models built upon purely biological understandings do not account for the cultural and social factors leading Veterans to have experiences of MI, alienation, isolation, and loneliness post-service that contribute to increased suicide risk. Considering that qualitative variables are constantly in flux and context dependent, something as complex as suicide risk cannot be adequately addressed in positivist risk assessment models, especially ones where cultural context is not meaningfully included – as they should be for military Veterans who have unique and highly stressful working and living situations.

As biomedical culture extends its influence over all areas of life, competing views must be brought to the forefront as a means to create more effective long-term suicide interventions. In the same way that the DSM fails to incorporate insider knowledge of those who have experienced social suffering of so-called “mental illness,” suicide research must not perpetually privilege medical expert knowledge over the much-needed qualitative data that can be derived directly from suicide survivors. This has been a primary aim of my research project: to give a voice to alternative perspectives from those who have dealt with or experienced suicidality directly.

Those who have survived attempts of suicide, or those who currently live with such distressing thoughts, need prevention approaches that are person-centered and inclusive of their social and cultural context. As White et al. (2016) indicate, disorder-centered goals reflecting biomedical discourse are ineffective for prevention because it is simply not the *disorder* that is

initiating the suicidal act, but it is the *owner* who, quite simply, “has a problem – which is not to be confused with *is* a problem” (p. 138).

3.2 – Mattering: A Key Construct for Suicidology

Many sociologists, such as Fanon (1967) and Cooley (1912), speak to how the way one is perceived and treated by others can weigh heavily upon self-worth, and has crucial implications for the meaning of life itself. Similarly, Mead’s (1934) theory of the self is also relational in nature: he indicates the self can only be constituted through the relations we have with others, thus directly affecting the relations with oneself. Given previous claims made that bio-psychiatric conceptualizations of suicide can be dissonant for many, a core focus of my work is to de-emphasize individual approaches to suicide. Recall Douglas (1967), who suggested a more interpretivist approach: suicidal outcomes need to be understood as socially meaningful actions. A key construct that can enable this shift is the concept of *mattering*.

Mattering, most simply, refers to the overall human need to feel important or significant based on the degree to which we feel we matter to others (Rosenberg & McCullough, 1981; Flett, 2018). A strong sense of mattering can reduce feelings of loneliness and provide a sense of purpose in our lives, and it is a recognized factor in navigating hopelessness and increasing resilience, making it an invaluable variable when approaching suicide prevention (Marshall, 2001; Wright & Matsen, 2006). Mattering provides the framework that has guided my research process, and after a thorough explanation of its inception and previous use in sociological research, I will utilize it to establish a more relational and person-centered approach to suicide.

3.2.1 Rosenberg’s Original Text

Mattering was first brought forth by sociologist Morris Rosenberg. He broadly identified mattering as a person’s need to feel significant based on the perception of others, indicating it is

the “direct reciprocal of significance” (Rosenberg & McCullough, 1981, p. 163). Rosenberg initially conceptualized mattering as having three components: an *awareness* of feeling known or significant in the presence of others; a feeling of *importance*, as reflected by others who invest in your welfare; and *reliance* (or a level of *dependence*) that others will look to an individual for support and/or assistance, thus providing a purpose.

Charles Cooley’s (1912) story of the Greek Hero Philoctetes displays how the greatest tribulations one can suffer is when others become disinterested in them – when someone indicates that you are no longer an object of their concern. Cooley’s example is a direct reflection of Rosenberg’s *attention* – the feeling that you command the notice or interest of another person. This also ties to Rosenberg’s second point of *importance*: once you have the attention of someone, it can be expressed that we are important to them, or (at the very least) an object of their concern. Similarly, this example brings us back to Shneidman’s (1996) *pyschache* - the notion that unbearable psychological pain can occur when we feel we do not matter.

At the most basic level, to feel one matters is to believe that another individual cares about us and is concerned with our fate. Rosenberg is explicit that mattering is independent of approval: we may be motivated to overcome imperfections because someone matters to us so much that we wish to overcome any criticism they may have of us, but this is distinctly different from someone else thinking well of us (Rosenberg & McCullough, 1981). He elaborates on this by exploring the feelings of mattering between parents and children through “parental mattering.” Rosenberg showed that adolescents who felt they mattered little to their parents were more likely to experience feelings of depression and anxiety. Furthermore, parental mattering was found to be a cause of delinquency: children would behave defiantly - even if they knew their parents would respond to them in an unfavorable way - as children felt it was more

important to behave poorly in order to command attention from parents as opposed to going wholly unnoticed.

The third variable, dependence, is key, and is explained by, “[how] our behavior is influenced by our dependence on other people is easily understood, since most of our needs are satisfied by other human beings” (Rosenberg & McCullough, 1981, p. 165). Mattering becomes a social obligation and locus for social integration: an individual becomes bonded to society because of our dependence on others, and *their* direct dependence on us. This dependence ties back to Durkheim’s (1897) study on suicide where he concluded that there were lower rates of suicide among married men and women. Durkheim explained that if suicide were exclusively from the stress and burdens of living, those who were married with children should have the highest rates of suicide compared to single people, as the latter were relatively free of social obligation. With this, it is fair to also include mattering as a motive: the fact that married individuals with children had lower suicide rates speaks to how dependence *from* someone becomes a protective factor against suicide. Rosenberg explains that “the feelings that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension exercises a powerful influence on our actions” (Rosenberg & McCullough, 1981, p. 165).

3.2.2 Significance of Mattering in Suicidology

Mattering has important implications for society, as it is a source of significant social cohesion. It is a force that binds people together or produces a semblance of solidarity through our dependence on one another. A basic fact of existence is that humans cannot survive or even consider themselves human without other people, thus creating a cycle of interdependence where others rely on *us* and we have a dependence on *others*. When this feeling of attachment

diminishes, Durkheim's suicide typology comes back into play: as someone loses a feeling of significance for or from others, they become vulnerable to negative emotional states like loneliness and depression due to a lack of integration. In light of this, feelings of social irrelevance *should* be a major factor in contemporary suicide research, but they are often overlooked.

Erich Fromm also explored societal mattering (though not under the same name); his work contributed directly to a more thorough understanding of anti-mattering, or feelings that one does *not* matter. He indicated that social isolation could enable an individual to experience profound personal insignificance due to an increased feeling of being invisible and/or irrelevant, therefore directly impacting wellbeing (Fromm, 1941; 1964). This can be further supported in how retired individuals experience feelings of irrelevance as they exit the work force – they are no longer depended upon, feeling like they no longer matter, which could explain why suicide rates are also prominent among the elderly (Herschel, 1971).

Overall, there are currently limited studies on mattering as it pertains to suicidality directly, but there are a few that suggest the value in revitalizing this approach. Pernice, Biegel, June-Yung, & Conrad-Garrissi (2017) indicate that mattering gives one meaning and drive to seek help if they are enduring troubling symptoms like self harm, where the presence and significance of the social circle in their life enables them to want to get help. Additionally, they indicate that “the absence of mattering to others can be coming to a painful awareness, believing that one is worthless, and thus increasing the risk of self-destructive behavior and eventually suicide” (ibid., p. 396).

Further to this, Kjelsberg, Neegard, & Dahl (1994) assessed suicidality in 1800 adolescents' psychiatric patients. Here, they found that feelings of not mattering could play a

significant role: adolescents who died by suicide were found to have extremely low levels of parental support. Furthermore, Firestone (1992) conducted in depth interviews with individuals who survived lethal suicide attempts, and feelings of *not* mattering were significant driving forces behind deciding to take one's life. One of the individuals in the study, Susan, indicated that she thought she mattered, only to find out she no longer did, leading her to conclude *nothing* mattered – thus, she decided there was no reason to continue to live (Firestone, 1992, p. 11).

Mattering must become significant to the study of suicide as a sense of *not* mattering can result in someone feeling inconsequential or insignificant, leading to social withdrawal and potential isolation (Flett, 2018), the latter of which is frequently recognized as a major factor of concern in suicide research (DSM-V, 2013). The elements of social withdrawal and isolation become key to the discussion on military Veteran populations. Though this has yet to be explored empirically, I wish to present a potential argument that increased suicide risk among Veterans is a direct result of feelings of anti-mattering. While mattering itself has not been applied to the military context for study to date, the over-arching idea I wanted to explore within this research is that Veterans, most simply, experience reduced feelings of mattering post-service; this could potentially explain why many of them face personal challenges, difficulties with their mental health, and high instances of moral injury due and suicidality as a result of this internal conflict.

There is ample literature speaking to the difficulties Veterans face with reintegration, and Junger's (2016) ethnographic work specifically supports the idea that a primary driver behind Veteran distress (or, what I perceive to be "anti-mattering") begins post-service at the first initial loss of peer/social support of their unit. Similar to Durkheim, Junger believes that Veterans are being forced to resume normal lives away from their "Tribe" (the title of Junger's ethnography)

and support system in a highly individualistic society. Here, they are no longer fulfilling daily duties that enabled the strong feelings of mattering and interdependence that inherently exist during service or military culture more broadly.

So, while the Veterans may have had high levels of mattering associated with their occupation, there is now ample opportunity for a sense of *not* mattering while in civilian life, with experiences of social isolation, lack of purpose, and reduced social support being frequently reported among Veterans (as explored in Chapter 2). This illustration and potential explanation behind a Veterans' increased suicidality becomes even more relevant during the discussion of my results in Chapter 6, where I incorporate insight and feedback from my research group – which includes the Veterans - on their personal perspective of mattering.

Lastly, Elliot, Colangelo, & Gelles (2005) point out that “those who believe that they matter have no reason to seriously consider the possibility of suicide... people pay attention to them, and they feel at least minimally connected to the world around them.” (p. 225). This is imperative given a study conducted by Morris (as in White et al., 2016) indicated that young people tend to make sense of suicidality in terms of social processes that are similar to feelings of mattering (e.g. not having enough friends, or being socially excluded) far more than the traditional psychopathological phenomenon or individual characteristics purported through psychiatric labelling. This is why the individualization and medicalization of suicide can be so harmful: attitudes rooted in a defeatist illness identity lead to hopelessness, and disable the ability for individuals to feel that there is a way to attain assistance or “healing” because they are held captive by their own biological “illness” - wherein only experts can assist with their recovery and change.

3.2.3 Further Considerations on Mattering

One understanding I have struggled with reviewing this literature is the difference between social supports, belonging, or perceived mattering. Theoretically, feelings of mattering most generally correlate directly to having strong, available social supports - a factor recognized in reducing suicidal risk, but one that is still severely understudied (Firestone, 1992; Flett, 2018; Government of Canada, 2016). Social support, in my understanding, comes with the *expectation* that others will provide or meet specific needs in times of distress, thus reducing suicide risk (Flett, 2018). In contrast to this, Rosenberg explains that mattering is far more general and, more so, involves others' continual interest in one's welfare - without the *expectation* or provision of material or emotional support - and is therefore, simply, a presence in one's life (Rosenberg as in Flett, 2018). This can be exemplified simply: receiving a letter from a friend when you are not in need, but it still serves as a reminder that we matter to them.

At its core, mattering requires someone to be responsive to us as individuals. This sentiment, and a sense of compassion more broadly, is not something that is frequent in impersonal psychiatric care settings, nor in a hospital environment. In my direct lived experience as someone who has worked as a medical assistant in pediatric psychiatry, as well as someone who has personally accessed emergency care due to suicidality, those seeking help are often made to feel like numbers within the system, and treatment plans for assisting suicidality are pharmaceutical-based and, at best, short-term aides meant to stabilize one's mood. White and colleagues (2016) support what I have personally observed, as explained in their work that covers the subjective realities of those experiencing suicidality. Their text provides numerous examples of how individuals presenting to care providers to seek help for suicidal ideation are dismissed, minimized, or manipulated into medication use (and treated as non-compliant if they

decline, further diminishing their attempts to seek help in the future).

In White et al.'s (2016) text, Bergmans, Rowe, Dineen, and Johnson (2016) have written a collaborative piece on issues around accessing care for suicidality from four different perspectives, and the chapter raises important questions about the ways in which current health care models operate. The authors argue that, frequently, distance between a care provider and suicidal client is created due the highly medicalized and objective nature of the interaction which can increase patient distress. In typical interactions, a focus is placed solely on identifying mental health symptoms in order to place a psychiatric label that may help explain the cause of suicidality. Further, the authors explain how health care professionals will often be the sole decision maker in whether the suicide ideation or attempts should be taken as “real” or not, which communicates feelings of ambivalence to the patient, and successfully minimizes the significance of the distress the person is experiencing.

Bergmans, who is a care provider, explains that, “suicidality goes beyond a diagnosis... Persons who are contemplating ending their lives are always more than the challenges we hear and observe in their moment of crisis” (2016, p. 134). Furthermore, Rowe explains that she came to “understand my diagnosis to be less about me and more about my relationship with my doctor.... The diagnosis does not live inside me; rather, it lives somewhere at the intersection between myself and doctors” (2016, p. 137). The authors conclude that, in many situations, individuals are not given enough time to provide meaningful narrative to their current situation, or do not have the capacity to verbalize their distress while in a care setting with strangers. They conclude that the interventions provided in the emergency room only addresses surface concerns (i.e., is this person at immediate risk for dying?), with no hope that actual, long-term assistance will be provided.

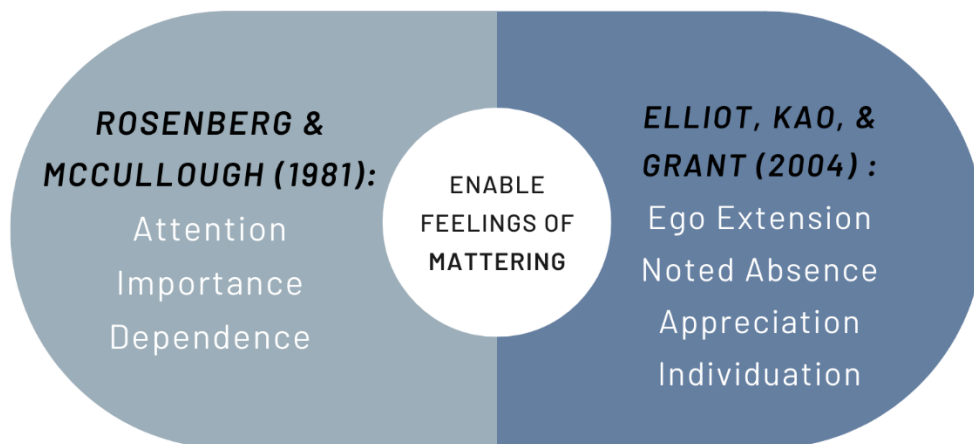
Given how medicalized responses tend to minimize distress and overlook the life situation of the individual, it is rational to assume that these forms of interactions would breed feelings of insignificance for someone already experiencing mental anguish. When people feel insignificant and unimportant, anti-mattering engages, further perpetuating a cycle of despair and hopelessness.

Mattering is a startlingly simple construct that has immense potential in suicide prevention and is a component I have explored extensively within this thesis work. Mattering has various measurable indicators available that researchers may use to assess an overall a sense of mattering (see Chapter 4 – Mattering Indicators, or Appendix C for full Codebook), which are summarized in the diagram in Figure 3.1, below.

Figure 3.1. Conceptual framework for mattering. *Originally developed by Rosenberg & McCullough (1981) and expanded on by Elliot, Kao, & Grant (2004).*

CONCEPTUAL FRAMEWORK OF MATTERING

A PERSON'S NEED TO FEEL SIGNIFICANT IN THE EYES OF OTHERS



*Rosenberg, M. & McCullough, C.M. (1981). Mattering: inferred significance and mental health among adolescents. *Research in Community and Mental Health*, 2:163-82.

*Elliot, G.C., Kao, S., & Grant, A-M. (2004). Mattering: Conceptualization and validation of a social psychological concept. *Self and Identity*, 3:339-54.

Primary components conceptualized by Rosenberg & McCullough (1981) were attention (awareness), importance (significance), and dependence (reliance) – as explained earlier in this chapter. This was later expanded upon by Elliot, Kao, & Grant (2004) to include additional criteria through a four component extension, which they also used in 2010, to empirically validate Rosenberg’s mattering as a social-psychological concept. These specific indicators relate to feelings of attention, importance, dependence, ego extension, noted absence, appreciation, and individuation (as further detailed in the diagram in Figure 3.2, below).

Figure 3.2. The indicators of mattering (or “mattering markers”) I used to guide my coding of the human-animal bond between the Veteran and Service Dog.

Recreated from Rosenberg & McCullough, 1981; Elliot, Kao, & Grant, 2004; Flett, 2018.

Indicator of Mattering	Mattering Descriptor
Attention	<i>“Feeling that oneself and one’s actions are noticed by others.”</i>
Importance	<i>“Feeling of being significant to someone who cares about you.”</i>
Dependence	<i>“Feeling of being important because others are relying upon you.”</i>
Appreciation	<i>“Feelings that you and your actions are valued and matter to someone else.”</i>
Ego-Extension	<i>“Recognizing that someone else is emotionally invested in you, and what is happening with or to you impacts them.”</i>
Individuation	<i>“Being made to feel unique, special, and centered on by someone based on how they regard your true self.”</i>
Noted Absence	<i>“Feeling that you are missed by someone.”</i>

3.3 Additional Conceptual Considerations on One Health & Hope

In addition to employing the concept of mattering, I will also be working from a One Health framework that acknowledges the multilateral connection between humans, animals, and the environment (Chalmers & Dell, 2015). As discussed in the literature review, One Health is important, as a strong connection to animals can be perceived as relational to one's broader connection to the social world. The implication for zooeyia to exist through human-animal bonding activities has been repeatedly documented to improve markers associated with overall wellness (Berget & Ihlebaek, 2011; Bryant, 1985; Dell, Arratoon, Lapointe, & Lohnes, 2017; Husband et al., 2020; Fine, 2015; McConnel, Brown, Shoda, Stayton, & Martin, 2011; Nepps et al., 2014; Peacock et al., 2012, Poresky, 1996; Strand, 2004; Wells, 2009; Zilcha-Mano et al., 2011). Many of the known benefits of the HAB - specifically, motivation for healthier behaviors and a sense of belonging - directly correlate to a reduction in suicide risk indicators. However, no studies have been conducted to date where the HAB is explored as a potential mediator of suicidal risk in any population, which is why uncovering mattering as it may exist through human-animal interactions is a key motivator for this study.

Lastly, in opposition to the often defeatist or negative attitudes that exist within medicalized discourse around suicidality, the theme of hope will become central to my research. Hope may take many forms: it can help someone locate and understand their sense of personal agency, develop goal-directed action or life-promoting thinking, and provide relief through internalized belief by accepting the notion that change *is* possible (Coppock & Dunn, 2009). Key to my investigation will be the potential of hope that exists because of the human-animal bond. Also, Luthar, Cicchetti, & Becker's (2000) definition of resiliency will be relevant: it is

understood as a process where positive adaptation occurs despite exposure to significant adversity. The presence of perseverance, as often manifested alongside increased feelings of hope and resilience, become crucial points of observation throughout the analysis and will be discussed at greater length in the next Chapter regarding my analytic strategy.

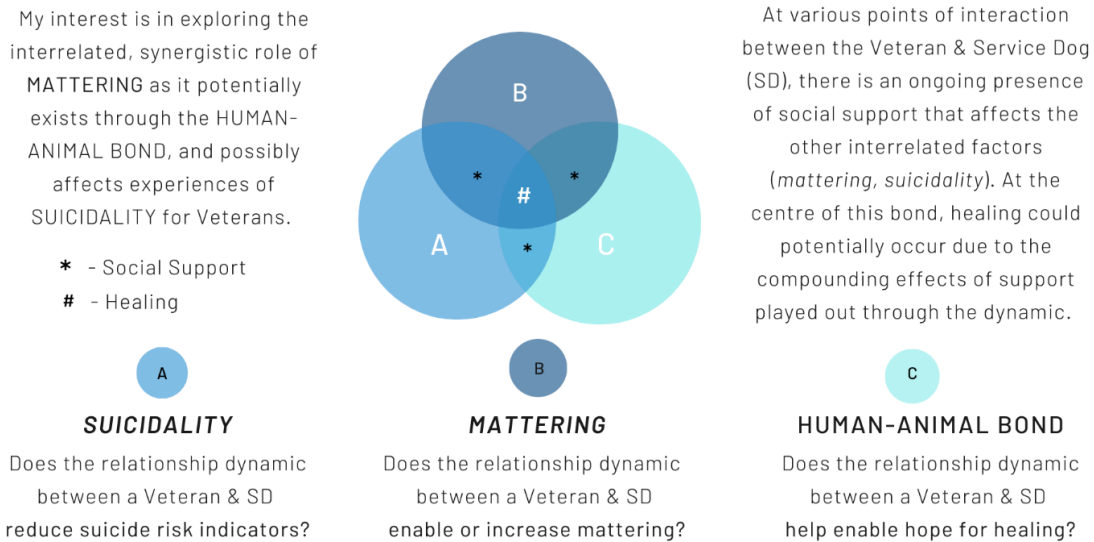
3.4 Research Questions

With the existing literature, theoretical considerations, and conceptual framework set for the reader's understanding, this exploratory study aimed to examine and better understand service dogs as a potential source of social support among Canadian military Veterans. My research specifically asked three separated (albeit interrelated) questions that correlated to my theoretical and conceptual frameworks:

1. Does the relationship between the military Veteran and their service dog reduce feelings and/or factors that increase risk of suicide (i.e. depression, loneliness, hopelessness, and anti-mattering?)
2. If yes, does this dynamic enable overall feelings of mattering (i.e. feelings of purpose, belonging, personal significance, etc)? If so, in what ways?
3. Furthermore, how can the perspectives of the Veterans help us, as researchers, better understand the human-animal bond as it assists in the reduction of suicidal risk and/or the development of hope and resilience building activities in the context of suicidality?

Figure 3.3. Visual representation of how my research questions correlate to the conceptual models I have detailed in my previous sections (suicidality, human-animal bond, and mattering).

CONCEPTUAL FRAMEWORKS AS RELATED TO RESEARCH QUESTIONS



3.5. Concluding Remarks

This chapter gave a brief overview of the sociological relevance of critical suicidology, discursive knowledge, and mattering as it directly pertains to approaching the topic of suicide in research. These conceptual considerations, alongside One Health and the concept of hope, are interrelated concepts that will be a core focus of my discussion in Chapter 6. My conceptual framework, as outlined in Figure 3.3, seeks to explore the relevance of mattering in the relationship between a military Veteran and their SD, and to investigate how the social support provided by a SD may reduce feelings associated with suicide risk – especially as it relates to combatting the ongoing medicalized and individualized approaches inherent to most suicide prevention. With my findings, I seek to better understand the role that mattering may have between humans and canines to promote feelings of personal significance. Lastly, I wish to examine how the Veteran perspective can help us better understand how the human-animal bond,

as a significant form of social support, can be better understood as a catalyst for hope, and a potential mediator in reducing overall suicide risk and enable “healing.”

Chapter 4 – Methodology

4.1 Research Design

With my study, I hypothesized that frequent experiences of mattering will be present in the relationship between the Veteran and their SD. As far as I am aware, literature on the human-animal bond and mattering has not yet overlapped, and never in the context of suicidality. Therefore, the primary objective of my research has been to explore the presence of mattering to better understand the social significance SDs have for Veterans who are living with symptoms that may increase their risk of suicide (*such as PTSD, substance use, and/or anxious and depressive thoughts*). With this chapter, I will outline my conceptual approach, introduce my sample, and explain my research methodology and completed analytic strategy via the use of thematic analysis.

4.1.1 Conceptual Approach

This interpretive research is guided by a subjectivist epistemological approach which focuses upon a patient-oriented perspective (Guba & Lincoln, 2004). A patient-oriented approach, which enables the ongoing participation of the participants of the study, is relevant and utilized in my project for two primary reasons: first, it allows for engagement with the research participants (the Veterans) at all points of the research process, thus validating the application and findings of the research activities (Malidou, Frisch, Doyle-Waters, MacLeod, Ward, & Atherton, 2018; SPOR, 2019). Second, it is a method that allows a new perspective and understanding that is critical of (and combats) the singularly biologically driven and “expert” perspective that is often employed in contemporary suicide research (as outlined in Chapter 2).

For my analysis, I drew largely from an interactionist paradigm that derives meanings from micro-level interactions with the understanding that "humans and animals co-exist within relationships to which we attach meaning" (Irvine, 2012, p.11). I employed a critical suicidology lens which aims to move "beyond seeing suicide as pathological and individual and challenges an overly narrow scientific view of this complex phenomenon" (Kral et al., 2017, p. 470), with acknowledgement that most suicide research is positivist in nature.

Given that most existing suicide literature frames feelings of distress as an "illness" or medical problem to be solved (White et al., 2016), an underlying motivation for my analysis was to emphasize the importance of social and contextual variables, along with the potentially positive aspects of experiencing an internal struggle. This is done with a patient-oriented and strengths-based perspective which directly confronts the limitations that exclusively bioscientific and deficit-based conceptualisations of suffering often hold. As such, themes of hope, perseverance, and resilience will be highlighted to show how experiences of suicidality can, potentially, be a catalyst in personal transformation and an imperative experience in one's larger "healing" journey.

4.2 Ethics Approval

I derived the data for my analysis from an original research study conducted by Dr. Colleen Dell and Nathaniel Osgoode, which was approved by the Human and Animal Research Ethics Boards at the University of Saskatchewan [BEH 17-371; AUP 20170114]. Informed consent was obtained in-person, as indicated by a signature for each participant. Participants also continually provided ongoing consent throughout the 18-month period: participants read and signed consent forms and were reminded of the parameters of informed consent throughout the data collection process (e.g., confidentiality, right to withdraw, right to leave any questions

unanswered). Consent forms were stored separately from the data to ensure that participant identity would not be connected to their responses. I received ethics approval to further analyze this data for a secondary analysis on the grounds that my own analysis still fell within the broader umbrella of “mental health implications” - a core focus of the original project. The University of Saskatchewan Human and Animal Research Ethics Boards (U of S REB) formally granted my ethics approval to attain and review the transcripts on May 14, 2020 [17-371], as they identified the risks were low and would cause minimal harm of the individuals upon secondary analysis.

4.3 Subjects & Sampling

Purposeful sampling was used based on existing data from a study available through the One Health & Wellness Office entitled, “The Impact of Service Dogs in the Lives of Veterans Who Problematically Use Substances.” These case studies were chosen for my analysis with the understanding that all the participants involved were at a high risk for suicide based on their specific demographic information.

This original research examined the impact that SDs have on Veterans’ substance use activities and overall health. The study utilized a community-based approach in direct partnership with AUDEAMUS, a national service dog training program. This organization pairs Veterans who experienced trauma while in service alongside dogs that are meant to assist said Veterans with their daily functioning and improve their bio-psycho-social-spiritual health (AUDEAMUS, 2018). The AUDEAMUS program training model requires that Veterans learn to train their own SD to increase the bond between Veteran and dog; it is suggested this approach improves training outcomes as opposed to pairing a Veteran with a pre-trained dog from an existing trainer and/or organization (AUDEAMUS, 2018). As mentioned previously, the welfare

of the animal remains at the forefront of all AUDEAMUS training activities, which is why extensive pre-screening is done for each person who is to be matched with a SD, and AUDEAMUS remains available for assistance and support throughout the years-long process.

An exploratory, patient-oriented, time-series research design was used for the original study to allow for Veteran engagement at all levels of the project, with measurement occurring at multiple time points. Data collection occurred over the span of 18 months, with empirical data specifically collected through semi-structured interviews from May 2018-2019 at the following time points: baseline, 1 month, 3 months, 6 months, 9 months, 12 months, and 18 months. Most of these sessions were held in-person, with one period completed by telephone due to weather-imposed travel restrictions. The interview guide for this research is available for review in Appendix A. The original study was based on a sample of five male Veterans, but for my secondary analysis, I used the data of only four participants as one did not complete all their interviews over the 18-month period.

The mean age of this group was 43 years (ages ranged from 36 to 51 years). Two participants identified as Caucasian, two as *Métis*, and one as First Nations. Most ($n = 4$) were married with children, and one was in a romantic relationship until 3 months into the data collection period. Of note, two of the Indigenous Veterans did not closely identify with their cultural background but expressed interest throughout the project in further exploring such. Three Veterans were matched with dogs to train, and two trained companion dogs they had prior to their involvement with AUDEAMUS. Unique to the initial study, and applicable to my own, is that each of these Veterans had been diagnosed specifically with PTSD by a clinical provider, and each self-identified as using substances – two factors that are repeatedly indicative of high risk for suicidal behavior (Nock et al., 2013; Thompson & Veteran Affairs, 2010; Lee et al.,

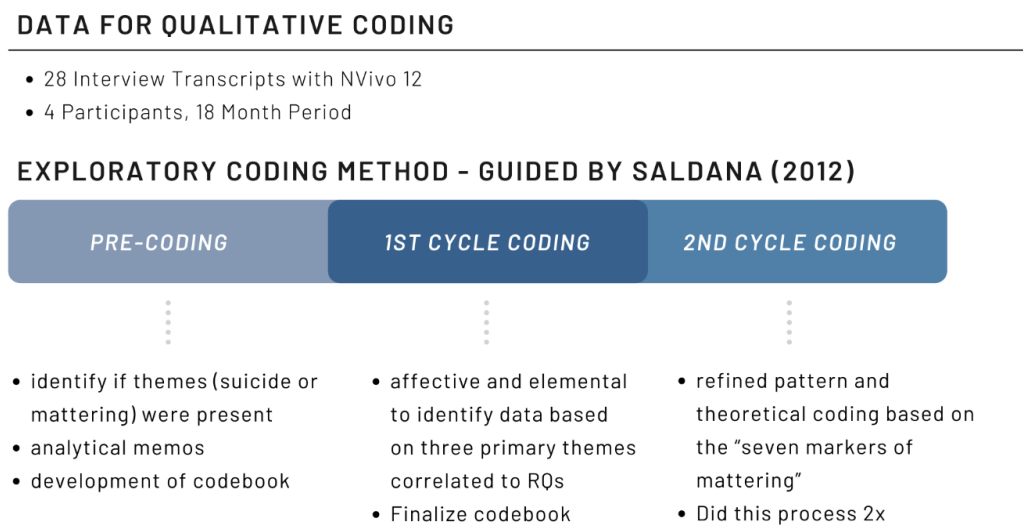
2018). None of the participants were recruited specifically on indicators of suicidal ideation or previous suicidal behavior, but the complex risk factors present (based on their existing demographic information) made them ideal candidates for my secondary analysis.

4.4 Data Management and Thematic Analysis

The aim of my analysis was to explore three primary themes within the in-depth interviews that were reflective of my original research questions: feelings of mattering; how the relationship between the Veteran and SD affects suicidality; and what can be learned from this human-animal bond as it potentially enables overall feelings of hope and “healing.”

Original interviews were conducted by One Health & Wellness team members, Dr. Colleen Dell and Dr. Chalmers, then transcribed into Microsoft Word by an external professional transcriber. Upon receipt of the interview transcripts, I loaded them into NVivo 12, the program that I used as my primary organizational software for coding of the interviews. The following image below provides a snapshot overview of my coding process.

Figure 4.1 Process for qualitative data coded guided by Saldana (2012). *Full Codebook is available in the Appendix C.*



4.4.1 Pre-Coding

Pre-coding activities involved an initial reading of transcripts on Microsoft Word where I open-coded by circling, highlighting, bolding, underlining, or color/rich-texting significant participant quotes or passages that I deemed as “codable moments” worthy of attention. This preparatory method was guided by “holistic coding” which attempts to grasp or identify basic broad themes or issues within the data by absorbing them as a whole rather than analyzing the data line by line (Saldana, 2015). Holistic coding enabled me to quickly identify whether the theme of mattering was present in the data, and to identify if suicidality and hope would be relevant topics for analysis. As a note, I did not know if suicide or mattering would be an existing or prominent theme prior to receiving the data, as these were not topics or objectives that were intended to be explored with the original study. Given this, I also allowed for the initial open coding of a broader “social support” theme in the event mattering was not present whatsoever.

During the pre-coding stage, I also made memos relating to the “Five R’s” of memo-making outlined by Saldana (2015): identifying routines, rituals, rules, roles or relationships that would be relevant to the phenomenon under investigation. I made analytical memos comparable to research journal entries, often making notes about participants or the processes under investigation such as how the Veterans discussed or characterized the relationship or bond they had with their animal, how this changed over time, or any passages that struck, surprised, or intrigued me.

Notably, I also pre-coded for the presence of any mention of suicidality (i.e. mention of suicide ideation or attempts), and made note of the repeated presence of indicators that have been known to be linked to increased suicide risk to ensure that the sample population did qualify as

“high risk” for suicide in my assessment. I will discuss this within my 1st cycle coding section, but extensive information on what qualifies someone to be considered at high risk for suicide is found both in my Codebook and Appendix B (i.e. a list of suicide risk and protective factors).

4.4.2 1st Cycle Coding

During the pre-coding process, I identified ample data relevant to my three original research questions. My coding scheme was most interested in exploring mattering and suicidality, and both topics were present as discovered in my pre-coding readings, so I developed a finalized Codebook to look specifically for markers of mattering and instances of suicidality. Here, I was able to create “Code Themes” (Nodes) within NVivo for the indicators that would guide my 1st Cycle Coding Process. The full Codebook (or “coding frame”) can be seen in Appendix D, where the name of the code, detailed descriptions, and examples of codes are provided. Given the specificity of the themes – which are based on well-established concepts that are frequently explored by other mattering researchers – this allowed for easy identification as well as straight forward communicability in the event a second coder was recruited for intercoder reliability purposes.

Figure 4.2. The examples of the indicators of mattering used to assess the human-animal bond and interactions between a Military Veteran and their Service Dog. *See Appendix D for full Codebook.*

Mattering Marker	Example of Mattering in Transcript
1. Attention	<i>"...You communicate with him, he is there; he is still attentive and it doesn't matter how bad it gets, he is still right beside you"</i>
2. Importance	<i>"It is someone to depend on."</i>
3. Dependence	<i>"I think she would be lost without me...it is my responsibility to take the dog out, and I can't do that if I am incapacitated."</i>

4. Appreciation	<i>"We do things for each other that the other species can't do for each other, like she can love me in ways that a human can't."</i>
5. Ego-Extension	<i>"I don't want to make her uncomfortable because as soon as I get uncomfortable, she is uncomfortable, and I think that is quite a bit of the mutual respect we have for each other."</i>
6. Individuation	<i>"There is a sense of peace and a sense of calm and he likes me for who I am, he is not judging."</i>
7. Noted Absence	<i>"There is never a moment in the day you are not wondering where she is, or looking for her."</i>

Some of the themes that arose were as expected, but others that were not predicted during my initial pre-coding were also present; these items will be mentioned within the discussion section of Chapter 6. However, the presence of mattering was overwhelming in this 1st cycle where I read the transcripts to repeatedly identify the selected codes (mattering markers) to seek patterns or repetitive actions within the data. Within this cycle, I focused specifically on affective coding methods to investigate the subjective qualities of the human experience occurring through the identification of emotions, values, and conflicts, and to tap into the inner cognitive system of the Veterans that enabled feelings of mattering (Saldana, 2015).

By applying the mattering coding frame through emotion coding, I was able to identify instances where mattering manifested directly through the interactions between a Veteran and their SD, or was communicated more latently by the Veterans when speaking to the HAB more broadly. Given the complex nature of the interaction between the Veteran and their SD, simultaneous coding was also employed. This form of coding recognizes that social interaction does not occur in isolated units, but that there can be multiple meanings elicited, where descriptive and inferentially meaningful interpretations of the data can be present to interpret both manifest and latent meanings within a transcript (Saldana, 2015).

Further to this, I also coded extensively on suicide and the risk factors commonly

associated with suicidality that were present for each Veteran. I acknowledge that while indicators that may increase someone's suicide risk may be present, that does not necessarily mean the individual is suicidal or at risk for such. However, the Veterans directly mentioned suicidality within the transcripts, which is something that occurred without being asked directly about it nor being prompted by the interviewers. Given this, my original assumption was solidified: the sample that I am working with would absolutely qualify for at-risk given the combination of being a Veteran who participates in substance use, has an existing diagnosis of PTSD, and speaks to their own lived experience of suicidal ideation.

The suicide indicators that increase someone's risk that I used for my own coding were taken from the indicators and warning signs that are explicitly outlined by Veteran Affairs Canada (Appendix B), which were adapted from the APA (2013) to better suit military personnel. I took these indicators and cross-referenced them with existing Veteran suicide literature to finalize my "Suicidality & Suicide Risk" markers for coding which were: suicide ideation, suicidal behavior, the presence of depression or PTSD, feelings of hopelessness, verbalized feelings of social isolation, substance use harms or activities, and increased stress. Each of the Veterans met these criteria, and had mention of each of these indicators throughout the transcripts.

4.4.3 2nd Cycle Coding & Post-Coding

Once 1st cycle coding was completed to identify any passages relevant to the presence of mattering and/or experiences pertaining to suicidality, 2nd cycle coding processes – by way of pattern and theoretical coding - then occurred to allow for expansion for my upcoming analysis. Pattern coding is appropriate for condensing large amounts of data while examining social networks and patterns of human relations (Saldana, 2015). This bridge enables the researcher to

move beyond simply identifying categories (as done with emotive coding) and develop an analytic story that can move into a broader theoretical direction. This coding approach attempts to explain phenomena and understand how and why they work, develop, and/or happen under circumstances (Saldana, 2015). This broader cycle of coding allowed me to take the conceptual framework of mattering and explore it in the context of additional themes such as critical suicidology, social stigma around mental health, temporal aspects of the HAB, and issues or limitations within complementary and alternative care models such as the nature of psychiatric care – all items frequently present within the commentary provided by the Veterans.

Given the complex nature of suicide risk and the human-animal bond, I did not focus on a single variable for this cycle of coding as I did not want my research agenda to come across as one-dimensional as opposed to than multi-dimensional or multi-storied. This 2nd cycle approach also revealed how each participant spoke to the unique aspects of social support provided through this bond, where each Veteran directly attributed the SD with improving their wellness in multiple, complex and interrelated ways. Theoretical coding was necessary to provide a broader discussion on the important role of a sociological lens, where all categories and concept code themes (*mattering, suicidality, hope*) could become systematically integrated around a central or core category of better understanding how the human-animal bond can promote wellness, and how it correlates to my critical suicidology framework. While my aim with the 2nd cycle coding was not to produce a specific theme, it did enable me to better understand the role that mattering has as a synergistic mechanism, where it can complement existing data in suicide prevention literature that focuses on the importance of social support, which is where a strong focus of my discussion in Chapter 6 will lie.

4.5 Concerns with Reliability

I was given the opportunity to employ the use of an interrater coder from the One Health and Wellness Research team to bolster my coding process. In qualitative research, the inclusion of intercoder reliability (ICR) is often done with the intent of improving the communicability, consistency, trustworthiness, or transparency of the coding frame and process that, sometimes, is questioned within qualitative research activities (O'Connor & Joffe, 2020). Upon further discussion with my supervisor on this methodological component, I chose to decline the offer of ICR. When outlining my conceptual framework in Chapter 3, I explained that I am using a critical suicidology approach – an approach that aims to move away from the traditionally employed positivist activities that are inherent to most suicide research, where the perspective and lived experience of the sufferer is often reduced to the use of numeric or medicalized labels.

As a lived experience researcher situated within this specific study, my position is that ICR activities contradict the interpretive nature of this qualitative work, and the use of ICR is not in line with my epistemological approach that rejects the notion of a possible objective reality or understanding for those experiencing immense social suffering. The meanings that someone derives from or assigns to social interactions – whether that be the Veteran personally living it, or the reflexive activities of the observing researcher – must be understood as a process and experience that is constituted by each person's individual social context and history. As the goal of this research is not to attain objectivity, the use of ICR to achieve so-called reliability undermines the steps taken to illuminate an alternative perspective derived by the Veterans, as interpreted by the researcher.

As Stenbacka (2001) and Braun and Clarke (2013) assert, reliability has little relevance to qualitative research activities, and should not be taken as an appropriate criterion for judging

work when the quantitative dimensions of ICR activities are epistemologically in opposition to the critical suicidology framework I am employing. As many researchers deal with this potential dilemma, qualitative researchers have proposed other criteria for ensuring trustworthiness and validity such as: a fully transparent reporting of the analytic strategy and procedures, producing thorough and thick descriptions of the data, attention to and elaboration upon deviant cases, and asking research participants to validate the legitimacy of the analytic interpretations (O'Connor & Joffe, 2020). All of these alternative points I have done, thus ensuring accountability and rigor as a critical qualitative researcher.

My last justification pertains to the following: because qualitative studies involve the coders to employ a certain level of interpretation of the data, this requires a strong familiarity or understanding of the conceptual frameworks applied (in this case, mattering). In light of this, I did not feel it was ethical (at this stage of the research process) to ask another lab member who would be conducting the ICR to review the large texts or dozens of mattering articles that I have studied over the last few years to ensure their secondary coding would have a strong understanding of how this conceptual coding frame differs from belonging and/or simplified social support. Despite my reservations about ICR's non-applicability for the context and aim of this work, should a situation arise in the future where attempts at publishing are refused solely based on a missing ICR score, I will implement this process.

4.6 Patient-Oriented Approach

To remain in line with a patient-oriented approach to this research, I was able to share the preliminary findings with the Veterans to elicit feedback, insight, and potential data verification based on the initial findings around mattering. Because of on-going COVID-19 restrictions, on May 28, 2021, I was able to meet remotely with our research group, which included the four

Veteran participants whose data I assessed. Our discussion focused predominantly on “mattering” as it is the main concept of this study, and the results poster I shared with the Veterans to lead our meeting is available for review in Appendix E. The discussion and additional findings that were generated from this knowledge exchange will appear in the next chapter, which details all findings.

Chapter 5 – Research Findings

5.1 Results on Themes of Mattering, Suicidality, and Hope

Based on the transcripts from the Veterans working with SDs and upon completion of coding, I can report that the seven indicators of mattering were present – as taken from the conceptual framework presented in the last chapter. This enables us to see how mattering can transcend human-human interactions and gives researchers a new understanding for how this concept can be used to assess human-animal interactions. Further to this, there were numerous reports from Veterans indicating the overall positive benefits from the SD in the context of reducing suicide risk. While the relationship with the dogs provided feelings of hope for “healing,” Veterans also reported the dogs as being the direct catalyst in reducing self-harm and overall suicidality. Those results will be presented in this section following a brief, contextual overview of the Veterans and their SD.

In order to protect the confidentiality of each of the Veterans, some of which have done public presentations that may possibly lead to the identification of them, I will not be providing any identifying social or familial characteristics of each Veteran participant but simply referring to them as Veteran 1, Veteran 2, etc. I will note, however, that each Veteran had a unique experience working with their SD, and each had fluctuations between varying accomplishments and challenges while training alongside their SD. Common themes reported from all Veterans

was that they found the relationship dynamic to be a very healthy and helpful distraction in their life, with family members indicating the Veterans' appeared to have overall improvements since the SD came into their life. The Veterans frequently spoke of increased feelings of safety which positively impacted their PTSD associated symptoms, with the dog enabling them to participate in many tasks they would otherwise have been unable to on their own, vastly improving their daily routines and quality of life. Also notable, is that one Indigenous Veteran indicated that this relationship with his SD increased his overall connection to nature, using his dog as his "nature bond" to promote holistic wellness.

5.2 The Presence of Mattering through the Human-Animal Bond

Each indicator of mattering was found to be present between all Veterans and their SDs. I first will take time to explain what each marker means, and then provide an example from within the transcripts to further exemplify the presence of the results. Given the multitude of examples of mattering present throughout the transcripts, there simply is not enough space to list each or explain every quotation in full depth due to length limitations. The specific quotations or summarized narratives I have chosen to share are justified on the basis that they are all strong, singular examples of how mattering may manifest or occur as a social process through the interactions of the Veteran and their SD, thus exemplifying not only the presence of mattering, but speaking to its unique social significance and synergistic affect as it exists through this specific bond.

Also, there is acknowledgement that social interactions are complex and interrelated, with emotions being multi-layered or feelings mixed. Given the nature of a symbolic interactionist approach, it is recognized that passages of text or quotations can have more than one meaning or potential interpretation. This stands true for "mattering," where multiple markers

may be present within a single datum, with each action often implying a certain level of reciprocity. Lastly, it is important to note that feelings of mattering were not always present: some indicators of mattering took time to build and solidify as the bond developed and strengthened between the Veteran and the SD, while others were reported as instantaneous. This temporal aspect will be elaborated on along with the broader theme of mattering within the Chapter 6 discussion.

5.2.1 SDs enabling feelings of ATTENTION.

“Attention” in the mattering model refers to the feeling that oneself and one’s actions are noticed by others; it is the awareness of feeling known or seen by those around us. Instances of visible, noted attention could manifest in a variety of ways such as: the dog clearly focusing on its handler, the handler simply noticing the dogs presence, the request of physical attention or play from the handler by the dog, prolonged eye contact, or verbalization by the handler that the dog is listening, attentive, or responsive during an interaction.

For example, the dogs were repeatedly cited as being highly attentive and engaged with their handlers: “*You communicate with him.... he is there, he is attentive*” (Veteran 3). Aside from the literal observed attention, it was also indicated there was a positive component to this form of attentiveness: Veteran 3 explained that the dog “*stares at me which helps break things,*” referring to the fact that he would often get lost in his own negative thoughts, but because of the dog, he no longer, “*always feel consumed with crap going through my head because I have to focus my attention on him and know where he is.... [I] just focus on him and that is a huge, huge deal for me.*”

5.2.2. SDs enabling feelings of IMPORTANCE.

Second, “Importance” is the overall feeling of being important to someone who cares

about you; this type of level of significance is central to making someone feel that they matter. Feeling valued directly by the dog – or because of the bond itself – can elicit an overall feeling of personal importance or significance. For example, the dog may be responsive to mood changes (such as being more attentive to the handler if the handler is experiencing distress) making one feel like *they* matter to the dog.

Each of the Veterans detailed how the dog was the most important and actively present support in their life, often making them feel valued. For example, Veteran 3 explained, “*If I get mad, she still loves me - and for me that is a huge, huge thing.*” Furthermore, this relationship is very unique to Veteran 4 who indicates that, if given a choice between his wife or the dog, he would choose his SD who he sees as more important:

I would take [my dog] every day of the week because she listens, she doesn't ever say anything, like, I don't piss her off when I am in a bad mood. She seems to find a way to cheer me up and do something stupid. She won't turn her back on me and leave the room [like my wife].

5.2.3. SDs enabling feelings of DEPENDENCE.

The third indicator, “dependence,” refers to the feeling of being important because others are *relying* upon you. Dependence strongly implies an inter-reliance: there is a certain level of knowing that the dog will look to the handler for support or assistance, thus providing the human a purpose. Instances of dependence for the Veteran could occur when working on an actional goal or duty when engaging with the dog, such as having a reason to do certain activities that are a necessity *for* the dog (e.g. feeding, exercising, grooming, etc).

All the Veterans indicated that, while they knew the dog was helping them, they felt that they were equally assisting their dog. For example, if the Veteran is experiencing a PTSD

flashback, the dog helps redirect his attention out of the distressing experience, and the Veteran could provide veterinary care or play with the dog for the improvement of its well-being. This reciprocity is detailed here, where Veteran 1 explains, “*he is just there all the time – it is someone to depend on,*” and Veteran 3 states, “*I think she would be lost without me.*” Also, interestingly, many of the Veterans changed their own behaviors or actions in order to be more dependable and reliable *for* the dog – such as getting up earlier to feed them, conforming to a daily routine, or reducing substance use. For example, Veteran 3 explained that:

I have got to be there... there is no ‘I am not doing it today, I don’t want to feed you,’ there is no days off with a dog... she is my purpose and I have to do everything for her,” as well as, “*it is my responsibility to take the dog out, and I can’t do that if I am incapacitated.*”

5.2.4. SDs enabling feelings of APPRECIATION.

Feelings of “Appreciation” indicate that you and your actions matter to someone else. This is likened to dependence, but instead of providing an actionable goal, the person *feels* like their actions are valued by someone. It can be likened to a feeling of gratitude: there is a recognition in knowing that the reciprocity of the bond or activities partaken in together are appreciated *by the dog*. Positive or happy displays of attention after an action can occur - such as a tail wag, licking, or increased playfulness – suggesting appreciation from the dog to handler.

In reference to appreciation, Veteran 1 explains an instance where his SD, “*just came up and gave me a hug... she actually gives a f***. She can’t say it, you can’t show it in data - but you know she does.*” On the flip side, Veteran 4 explained how he has appreciation directly for his dog based on what she has helped him achieve: “*I am scared to go places but nothing is defeating me now,*” referring to how he can now face things he was previously unwilling to try prior to having his SD.

5.2.5. SDs enabling EGO-EXTENSION.

“Ego-extension” was the most prevalent marker of the study, with the frequency of occurrences only increasing as the bond strengthened and solidified between the Veteran and their SD over time. Ego-extension becomes the recognition that someone else is emotionally invested in you, and what is happening with or to you also impacts them. This mechanism manifests as a level of self-awareness that what happens to the Veteran would directly impact the dog (and vice-versa). Ego-extension can be likened to the acquisition of emotional intelligence or emotional regulation skills, and it can also be encapsulated by the acknowledgement of reciprocity within the relationship – especially as affected by mood or circumstance – and ongoing emotional interdependence between dog and handler. It is an immensely relational measure which will be a core focus of my later discussion in Chapter 6 on the important interplay of the human-animal bond increasing emotional awareness for “healing.”

Through the mechanism of ego-extension, the Veterans modified their behavior or actions to make the dog more comfortable. For example, Veteran 4 details that, *“I don’t want to make her uncomfortable because as soon as I get uncomfortable, she is uncomfortable, and I think that is quite a bit of the mutual respect we have for each other,”* or how Veteran 2 details how his *“[dog] feels my pain.”* Some of the Veterans said they purposefully worked towards becoming less volatile or anxious because they cared how this would impact their dog’s mood and behavior. When asked about how his anxiety has been since receiving a SD, Veteran 4 reported that, *“if anything [dog’s] presence in my life has made me more cognizant of what is going on with my anxiety because I need to be... nobody has ever been able to pick up on my anxiety, and [dog] does.”*

5.2.6 SDs enabling a recognition of NOTED ABSENCE.

One of the least complex markers, “noted absence,” is simply the feeling that you are missed by someone else. Instances where there is a clear separation resulting in a changed behavior in the dog, or even simply speaking of a suggested separation (such as a dog passing away), resulted in strong feelings on behalf of the Veterans.

For all participants, the Veteran and SD were rarely separated; when they were, it was increasingly obvious. For example, Veteran 2 explains, *“If I am not in the room, the dog comes to find me,”* or *“there is never a moment in the day where you are not wondering where the dog is or looking for her,”* (Veteran 4), and *“When I came home, he was just waiting at the door like, ‘where did you go’?”* (Veteran 1).

5.2.7. SDs enabling feelings of INDIVIDUATION.

Lastly, feelings of “individuation” refer to someone being made to feel unique, special, and centered on by someone else based on how they regard your true self. Each of the Veterans reported that their dog was able to acknowledge, accept, or receive the handler as their authentic self. Examples could be instances where non-judgement or unconditional love were perceived by the handler such as, *“He likes me for who I am,”* (Veteran 3), *“I don’t feel like a monster with him,”* (Veteran 2), or, *“there is a sense of peace and a sense of calm and he likes me for who I am, he is not judging... it is like he just gets me”* (Veteran 3).

Additionally, the SD was reported as one of the few supports who could sit with or give space to the Veterans when reportedly at their “worst.” For example, from Veteran 3, *“it doesn’t matter how bad it gets, he is still right beside you.”* This was repeatedly cited as a stark contrast to the other supports in their life, where the Veterans said the authenticity or “no-strings attached” non-judgmental attitude they felt and received from their dog was different than that of

their spouse, children, or other social support networks.

Interestingly, one Veteran indicated that the dog knew when he was under the influence of substances; here, the dog would appear to avoid the handler and be less responsive to him and his needs after using alcohol. Given this, it could be argued that, perhaps, the dog has enough connection with the handler to know when the Veteran was *not* being his true self, and the dog steered clear for its own protection or safety. This point, in particular, brings up the issue of animal welfare which I will explore during my discussion.

In reflection of my second research question, I conclude that feelings of mattering are present in the interaction between each Veteran and their SD. However, how does this finding tie or overlap with social support and suicide risk more generally?

5.3 A SD as a Primary Social Support in Reducing Suicide Risk

The Veterans indicated that the social support received from the SDs, and the overall bond that existed through it, brought significance, meaning, purpose, and belonging to their lives - as better understood through the conceptual mattering model in the previous section. The Veterans also indicated this bond was unique compared to the relationship they had with other existing supports in their life. With the recognition that the SDs can act as a social support to their handler, I wanted to better understand how this may apply to the context of suicidality given the existing literature citing social support as a highly important factor in reducing suicide risk. In light of this, my primary research question wanted to explore, “**does the relationship between the military Veteran and their service dog reduce feelings and/or factors that increase risk of suicide?**”

The seven indicators I identified and coded that suggest high suicide risk among the Veteran population from my sample were the presence of: suicide ideation, suicide behavior,

depression, hopelessness, social isolation, PTSD, substance use, and increased stress. My Codebook in Appendix D details these indicators further, with a list of all available risk factors in Appendix B. Each of the Veteran cases met the criteria for high suicide risk based on their demographic and interview data. Aside from the coding activities, the Veterans shared on their own experiences of suicidality within the transcripts, a topic that was openly brought up and discussed without prompt from the researchers. While this will be explored more fully in the next chapter, numerous indicators that heighten one's suicide risk appeared to be reduced directly because of the dynamic between a Veteran and their SD. In particular, the Veterans reported relief in markers related to depression, social isolation, feelings of hopelessness, and symptoms indicative of PTSD. Veteran 3, when asked to speak how the dog directly supported him, indicated that:

I need my dog to get out of the dark; I knew enough in my head that I couldn't do it on my own; I needed to have her guide me out - she is the only guide I have.

Additionally, Veteran 1 said that, in respect to the unique social support received by his dog: "*we [Veterans] get needs met that we can't get from humans.... I think that is why we [Veterans and Dogs] get along so good.*"

Important here is the finding that the SDs helped reduce harms from substance use. As queried by the original study where my data was derived from, Williamson, Dell, Osgood, Chalmers, Carleton, & Amundson (2021) have published their own, separate findings on the reduction in substance use harms for Veterans while working with SDs. This result is significant, as substance use harms are arguably the largest risk factor for suicidality, and use of substances frequently precedes an actual suicide attempt due to the increase in impulsivity and lack of coherency that may occur while under the influence (Butler & Taylor, 2015).

Within the data, Veteran 4 directly reported that, *“I should have been dead - I drank the 26 of rye and I got in my apartment and kept going, and woke up the next afternoon in my own feces and a shotgun in my lap.”* In addition to reduction in the above suicide risk markers, all of the Veterans reported experiences of suicidality, with three of the four Veterans indicating that - on more than one occasion - their SD was the direct catalyst in preventing self-harm and suicidal behavior. Regarding the role the dog has played in suicidality, the Veterans are quoted with the following: *“It doesn’t matter how bad it gets, the dog is still right beside you,”* (Veteran 3), and Veteran 4 reporting that, *“she saved my life,”* as well as:

you are never really depressed, and if you go to sleep and want to kill yourself... you get up in the morning, it is sunny outside, the first thing she wants to do is play and go for a walk. Your day is always going to be better even if you wanted to kill yourself when you went to bed.

While this theme will be a larger focus of my discussion, Veteran 4 extensively explained how, previously, he would experience severe depression with intermittent suicidality for months. However, he experienced profound changes in his attitudes towards suicide after acquiring his SD:

When I had the breakdown, not once did the fact of suicide come into my head....
Actually, that is a lie - it did come into my head. It really did. And I was thinking about getting a hotel and just doing myself in at the hotel.... when we were driving there, and then I said, well, I can’t kill myself because [Dog] is in the room with me being dead all night long - that would kill [Dog]. And then where is [Dog] going to go if I die? So, in a way, she is ultimately the one that kept me from doing it.

This finding – the Veteran explaining that the SD was the reason he stopped a planned suicide attempt - is significant and warrants further direct investigation, especially in respect of how the human-animal bond or animal-assisted intervention relates to suicide prevention.

5.4 The Human-Animal Bond Increasing Hope in Healing Activities

Given the previous discussions on increased feelings of mattering and reduced feelings of suicidality, my last research question wanted to explore how the perspectives of the Veterans could allow us, as researchers, to better understand the HAB as it assists in the potential development of hope for “healing” activities. To explore this final theme, I coded for instances of hope, perseverance, resilience, or more general facets of the human-animal bond as it provides social support (outside of mattering) to promote “healing.” See my Codebook (Appendix D) for further details on indicators.

As indicated in the previous sections, the Veterans cited how the dogs’ assisted with reducing feelings of hopelessness and brought purpose, significance, and meaning to their lives. Veteran 1 relayed how, “[*this*] is the first time I have had hope that something might actually work,” with Veteran 4 saying, “I can see a future now,” and Veteran 3 reporting, “I think I have more optimism now than I did before.” The interviewers asked for clarity if these attitudinal changes were directly dog related, to which they each said yes. To elaborate on how this relationship is significant to “healing,” Veteran 4 indicated,

what guys have to understand is they [SDs] are going to help you with your recovery, they are going to give you a purpose, they are going to give you everything that you could possibly want out of anything. My life is coming back now.

Furthermore, Veteran 3 explained how he never used to laugh and rarely experienced joy, but now he found lightheartedness and enjoyment in watching his dog play:

I didn't laugh before [getting dog], there really wasn't any humor. I also find, where the end of the tunnel was always dark - it seems a hell of a lot lighter having him there like, you know, coming out of the shadows, and you are going to make it there, and hell – you don't need to have that flashlight anymore because there is enough light to help get you there, and he [my dog] has brought that out.”

5.5 Results Presentation

This chapter illustrated how the presence of mattering exists within the data, that there are clear reports of the SD reducing markers related to suicide risk and actual instances of suicidal ideation or self-harm behavior. Further, commentary was provided on how the bond between a Veteran and their SD promotes attitudinal changes to enable feelings of hope for “healing.” As mentioned in Chapter 4, I relayed my mattering results to the Veterans during a results presentation. During this knowledge exchange, the Veterans indicated that while the concept of mattering resonated greatly, it meant far more to them in the context of feeling like they no longer mattered after leaving service and returning to civilian life. The suggestion that feelings of anti-mattering increases for Veterans when service ends is an idea I brought forth in Chapter 3; this was confirmed during the results presentation. Unfortunately, the topic of mattering to Veterans more broadly (i.e. outside the relationship of the Veteran of their SD) and what it means to them in various contexts is outside the scope of this thesis, as mattering was not a primary consideration during the data collection process.

However, the exchange I had with the Veterans suggests there is an enormous amount to be learned about why Veterans feel they matter while in active military service, as opposed to when they are no longer serving. I believe this is a significant finding that warrants further investigation, and speaking to Veterans directly about mattering may prove fruitful for future

research endeavors focused on Veteran suicide. Additionally, the Veterans further emphasized how each of them were unique – personally, and in respect to the relationship they have with their SD – but had experienced similarities regarding the challenges of ending service and returning to Canada (where they felt little mattered post-service). Again, my research was focusing on mattering as it manifests in the dynamic between the Veteran and their SD, so I was not able to interview the Veterans further about this topic as it manifests outside the human-animal bond.

Overall, the Veterans reiterated that the SD could be viewed as a crucial steppingstone or bridge to enable them to build confidence and engage in activities they were previously unable to. The insight that the Veterans shared had an impact on the latter portion of my analysis, where the important differences of mattering based on context will be explored in Chapter 6. Given this, I will now turn to my discussion to the interplay of mattering, suicide risk, and hope that exists because of the interactions and bond between a Veteran and their SD, as well as the broader theoretical implications these findings have for critical suicidology, medical sociology, and public health research.

Chapter 6 – Discussion of Research Findings

6.1 Discussion on Themes of Suicide Risk Reduction, Mattering, and Hope

The objective of my study was to identify, using a mattering framework, the potential social significance that SDs have for Veterans at high risk for suicide. As detailed in the last chapter, the seven components taken from the conceptual mattering model were identified in the reported experiences of each four Veterans working with SDs. Numerous benefits of working with a SD were also brought forth by the Veterans outside the context of mattering, such as noted improvements to social interactions, increased physical activity, reduced social isolation and

substance use, as well as a lessening of symptoms related to their experiences of PTSD, anxiety, and depression. However, when presenting the mattering findings to the Veterans, they voiced the need for further emphasis about the importance of context when it comes to mattering comparisons, speaking to how the dog should not be understood as *the* mechanism to enabling overall feelings of mattering, but as a bridge that possibly enables mattering to then occur in other areas and circumstances of their lives.

Drawing from the understanding that social support can positively impact feelings related to suicidality, this chapter will discuss four key findings pertaining to the potential significance of human-animal interactions: (1) that feelings of mattering can manifest through the human-animal bond - although, with variation occurring between individuals and contexts; (2) the need for and importance of unique social supports for Veterans at high risk for suicide; (3) how a SD can directly impact suicidality for a Veteran while also providing hope for “healing;” and (4) contextualizing the Veterans personal perspective on what these findings and mattering means to them. These themes will also be discussed in respect to the implication that animal-assisted intervention may have for other individuals experiencing suicidality, while also advancing this position as it pertains to the field of critical suicidology and mattering research moving forward.

Important to note prior to my discussion, however, is the difficulty in disentangling the complex themes of suicidality, mattering, social support, animal-assisted intervention, the human-animal bond and overall improved health and “healing” (see Figure 3.3 previously depicted). Each of these factors are undoubtedly interconnected as they relate to the holistic “wellness” of the Veteran, so there may appear to be repetition in drawing linkages between the three primary themes (*mattering, suicidality, and “healing”*) and the importance of context as they relate to my initial research questions.

6.2 Mattering Exists through the Human-Animal Bond

As stated earlier in the paper, mattering is not something that has been explored on an inter-species basis – only human to human. One of my research questions aimed to assess if mattering existed between a Veteran and their SD, and if so, in what ways. The results indicated, yes, the seven indicators of mattering can manifest between a dog and handler, as based on my interpretation of perspectives shared by the Veterans. However, I note that mattering itself presents differently in this bond when compared to human-human interactions, given the obvious limited capacity for verbal communication between dogs and humans, and the unverifiable subjectivity of the animal. Nevertheless, my findings suggest that many different formulations or presentations of mattering can exist in human-animal interactions, which has important implications for other wellness building activities - especially given the existing utilization of mattering for mental health promotion activities.

As explained in my results section, there is acknowledgement that social interactions are complex where feelings can be mixed, with passages of data having many potential interpretations. While data coding was rigorous, I stress that many of the mattering indicators presented could exist simultaneously during an interaction and that, overall, mattering is a synergistic concept when it comes to improved well-being. Given the existence and complex overlap found between many of the markers of mattering, my research also speaks to how dynamic and unique the social interactions and core bond can be between a Veteran and a SD. This dynamic, while different than the mattering that may exist between humans, may also differ from that of a regular companion animal for a Veteran. Future studies could potentially explore the presence of mattering between companion animals and handlers, as opposed to Veteran's training alongside a specified SD – or, also, relationship variations or levels of significance

between a companion animal and SD within the same household.

Given the existing studies that have shown how increased feelings of mattering (or reduced feelings of anti-mattering) can improve mental health outcomes and reduce self-harm activities, my findings indicate there is strong potential for animal-assisted intervention as a complementary “healing” aide for alleviating negative emotional states - especially for those at high risk of suicide (Firestone, 1992; Flett, 2018; Pernice et al., 2017). Important within this discussion is also the temporal aspect, as not each of the Veterans had an immediate bond with their dog. In two instances this was recognized early on, so the Veterans were able to begin working with different SDs with more positive outcomes. My study found that, as time progressed and training was maintained, the bond between each Veteran and their SD only increased in strength, with more markers of mattering appearing on a more regular basis as the relationship transformed and positively developed due to the pair spending more together bonding - whether in training, playing, or sleeping.

Relevant within this temporal aspect is the highly related mattering marker of “ego-extension.” This indicator is the recognition that someone else is emotionally invested in you, and what is happening with or to you also affects them. All of the Veterans explained that, over time with the training of their SD, they came to realize just how much their own emotional state impacted their dog. They observed this not just in the dog’s ability to be responsive as needed for the Veteran (*such as acting as a helpful disruption during a PTSD flashback, or awakening them during night terrors*), but in the dogs’ overall wellbeing - as perceived by the subjective experience of the Veteran.

For example, the Veterans explained that they did not want to experience uncomfortable emotions or be under the influence of substances for fear of how it would affect their dog.

Further, the Veterans were also motivated to ensure their dog was well taken care of to reduce stress and/or emotional suffering for Veteran themselves given the emotional reciprocity between each of them. The thought of the dog passing away or becoming ill was of great distress to many of the Veterans, indicating the need for possible safeguards to help Veterans prepare for their SD's end of life to maintain their own well-being and the positive health improvements that come from pairing process of working alongside a SD.

The awareness of the presence of ego-extension – or the capacity of any type of broader emotional self-regulation activity - is a core facet of many aspects of improving mental health, as increased emotional intelligence is a tool that helps combat fluctuating mood symptoms and gain greater mental stability (Berking & Wupperman, 2012). This is particularly true in trauma research where it is being increasingly recognized that feelings of dysregulation and nervous system hyperarousal (*also known as “autonomic nervous system overregulation” - as manifested through typical PTSD symptoms like hypervigilance and irritability, increased sensitivity to anxiety, pain, noise, sensations, etc.*) can be improved by increasing one's emotional intelligence and participating in self-regulation techniques; this is because increased emotional awareness can lead to nervous system “downregulation” or diminished emotional reactivity and physiological hypersensitivity (Berking & Wupperman, 2012; Levine, 2010; Pert, 1999; Porges, 2011; Shepherd & Wild, 2014).

By having a SD, Veterans were forced to frequently identify what they were experiencing emotionally, and by extension of this, not only did it improve the training process, calm their own mood, and improve the experience they had while working with their dog, but these positive emotional changes extended into other social relationships in their lives. Many of the Veterans said they were getting positive feedback from family members (and, particularly, spouses) on

their attitudinal changes and decreased reactivity. Veterans were also able to increase their confidence to participate in previously distress-inducing activities. For example, going into public became less anxiety-provoking, as the SDs would recognize if the Veterans were getting overwhelmed, alert them, and get them to safety. This increased recognition of emotional regulation is an element that has implications that extend further than just the individual who is directly benefitting from the interaction with their SD but has the potential to reduce familial tension and/or possible explosive outbursts that may affect those who cross the path of the Veteran while in distress in public spaces or while accessing services in institutional settings.

While mattering has been found to be present in this study, a further consideration is: can a relationship or bond with ample feelings of mattering counteract or offset an existing relationship where mattering is *not* present (such as through a care provider, spouse, or child) – or the loss of mattering by changing careers - that may be contributing to increased stress and/or distressing thoughts? This is a question that constantly arose during the research process given the frequent mention by the Veterans that the relationship they had with their SD was unique and, often, more important than that of the other supports in their lives. Suggestions for finding further clarity on this dimension are presented in Chapter 7.

6.3 The Importance of Unique Social Supports for Veterans

As noted in the previous chapter, the Veterans outlined how significant the relationship they had with their SD was to their overall wellbeing. Many of the mattering markers present showed that there were unique aspects of the support provided to a Veteran by their SD, with many indicators (“Dependence,” “Appreciation,” and “Individuation”) eliciting importance and significance in their lives. In reference to literature cited in Chapter 2, social supports need to remain a central focus in suicide prevention activities, as many indicate that feelings of

loneliness, depression, and/or instances of social isolation were the primary factors contributing to their overall self-harm and suicidality (White et al., 2016). The importance of social support in the military context was also brought forth in Junger's (2016) ethnographic work, where he explained that the loss of a stable social support unit (which is ever-present in the active-duty context of Veterans) by way of transitioning back into highly individualistic civilian life has had immensely negative mental health consequences for Veterans.

Recall in Chapter 3 that I suggested it is perhaps anti-mattering that is at the root of the Veteran's suffering. This line of thought informed my entire analytic strategy for this project, where I posited that if mattering could exist through the HAB, this finding could be significant for each of the Veterans. In the results presentation and data verification that occurred with the Veteran research group, mattering was brought to the forefront where the concept itself was well received, but the criticism of its use came regarding context.

One Veteran explained that feelings of mattering were *exactly* what he experienced while in the military, and how returning to civilian life felt like a strong loss; this sentiment was shared by the rest of the group. However, he elaborated by stating that you simply cannot compare the significance of mattering in the military context to any other experience in civilian life as the "stakes are not the same." The Veteran illustrated this in the following way: he knows that if he does not let his dog out in the morning, she is going to pee on the floor, and he can just clean it up. Whereas, if he is not prepared and ready for duty in the military context, his colleagues could die.

He views this level of accountability and overall importance as being context specific where the duties of work and the duties of caring for an animal were seen as incomparable. Of note, this illustration also came from the participant who was, at first, very reluctant and

indifferent to attaining a SD. Nonetheless, each of the Veterans acknowledged this valuable insight, where mattering was understood as an incredibly relevant and important construct to make sense of their military experiences along with the sense of significance and duty they experienced in their life during deployment; however, they felt it was limited if one were comparing their human-human military interactions and duties alongside the duties inherent to their human-animal interactions and SD training activities.

Alternative to this view, two of the Veterans made arguments that mattering did make sense in terms of the unique social support the dog provided. One Veteran explained that it was only because of his dog and what this relationship brought to his life that he was able to begin “healing” to “get back pieces lost” during his time in service. Both during this conversation and repeatedly within the data, the Veterans indicated that the dog was the secure base or “anchor” in their lives, suggesting the relationship *did* produce mattering directly. The dogs provided a stable, consistent, and strong social support in what was considered an otherwise chaotic life where many difficult social interactions or interpersonal relationship conflicts occurred. By having the SD, the Veterans were able to increase confidence and feel safe enough to attempt accessing additional therapeutic routes (*such as attending group therapies or counselling sessions*). Also, they were able to improve their existing social relationships due to decreased tensions in their daily functioning - as enabled by the SD and discussion in the ego-extension section.

Further to this, one Veteran indicated that he understood his SD to be an important bridge and a core connection that, currently, affected all other aspects of their life. Repeatedly in the data - and later verified during the results presentation - the Veterans indicated that the specific support, non-judgement, and confidence they received from their SD transcended what they

could possibly receive through a human-human interaction. Not only does this speak to significant and specialized role animals can play in “healing” or resilience building activities, but it goes to show how the indicators of mattering can be synergistic to improve situations in many contexts of one’s life.

Also relevant to the overall social support experienced by the Veterans is how they valued the additional support they received by being connected to AUDEAMUS – the SD training organization. A level of solidarity was identified here, as each of the Veterans navigated their SD training in a group setting. A level of comradery or mattering was achieved here as they had others to rely on, support, or reach out to who were going through similar struggles with PTSD, substance use, and SD training - thus providing a sense of community and new level of belonging they had previously lost when they exited military service.

6.4 The Human-Animal Bond Impacting Suicidality & Healing for Veterans

Another component of my research I wanted to understand was if the presence of a SD could reduce feelings and/or symptoms that elevate a Veterans suicide risk. My findings showed that the SD positively impacted the markers that put the Veterans at high risk for suicide, where changes were noted regarding substance use activities, PTSD, depression, and anxiety, along with reduced loneliness, hopelessness, and social isolation. While, again, I acknowledge that there is a complex interplay of factors, it cannot be underestimated that the many positive changes occurred for the Veteran directly *because* of having a SD in their life. While findings around changes to PTSD and substance use have been published by our team and were cited previously, my study’s unique contribution to this larger body of work is the synthesis of all of these factors to illuminate the direct impact the SDs have on overall suicidality.

As shown in the results presented in Chapter 5, the Veterans actively struggling with

suicidality indicated that their SD was the reason they managed to find their way out of suicidal ideation and/or avoid attempts at self-harm. A larger element of this pertains to the fact that many of the Veterans reported feeling hopeful since the introduction of the SD in their life; the dog provided a new level of optimism or joy for them, so a reduction in feelings of hopelessness were noted with an increased mention of feeling personally significant - like they *now* had a purpose. I could not seek additional insight or verification on these suicide-specific findings when I presented this data to the Veterans during the results presentation due to concerns about bringing up a highly sensitive topic that was not originally intended to be explored from the initial research project. However, highly relevant is one of the Veteran's realizing during our meeting that anti-mattering was at the core of many of his own struggles, with all Veterans speaking to the validity of applying mattering to the military context and encouraging further exploration in this area even outside of SD dynamics.

Due to the “interdependence” (as identified in the mattering model), the Veterans often felt compelled to do things for their dog and experienced guilt if they did not take care of their SD. This means the SD was also a catalyst to motivate the Veterans into action – something that was previously difficult due to the overwhelming depression or other negative affects. This level of importance – to perform and complete a task – can reduce feeling of hopelessness and is in line with much of the suicide literature where unremitting anxiety, aggression, and withdrawal from social activities can worsen suicidal ideation (see suicide risk and protective factors which are listed in fully in Appendix B). Factors such as a sense of belonging, usefulness, and responsibility (similar to “dependence” in the mattering model) are known protective factors, and these were aspects that the Veterans reported were directly provided by the SD and confirmed in the mattering framework.

Additionally, the research I cited in the Chapter 2 literature review explains that animal-assisted intervention can improve the therapeutic alliance (Fine, 2015). A widely recognized protective factor in suicide research is being able to access adequate medical and therapeutic treatments (Veteran Affairs, 2019). While the presence of a SD does not imply that the dogs themselves are *THE* therapy – it can be argued that they do have immense therapeutic value. For example, these Veterans were able to use their dogs as a bridge and safe anchor to take with them in public, giving them the courage and increased confidence needed to access additional treatment or resources for other areas of concern in their life that they may have previously avoided. During the results discussion, the Veterans reinforced this finding by indicating that it was only after receiving their SD that they could consider returning to work, which restored, to some degree, a level of mattering – as mattering, in their view, also ties directly to their occupation - suggesting that the dog was the steppingstone to enable a sense of significance in other arenas of their life.

Further, the biophilia hypothesis has shown us that a connection with nature or the natural world also improves overall wellness (Gullone, 2000). This was particularly important for one of the Indigenous participants, where the relationship he had with his SD was something he conceptualized as a “nature-bond” – he felt at peace spending time with his dog out in the natural world, as it allowed him to connect with something larger than himself that was in cultural alignment with his spiritual belief system. Given the existing literature on the importance of connecting with the natural world for improved mental health, alongside a One Health framework which recognizes the interconnection of multiple systems as it pertains to “wellness,” this cultural and biophilic “healing” aspect is an area of possible inquiry for future SD or AAI research studies.

6.5 Additional Considerations for Critical Suicidology

While numerous benefits of working with a SD were reported, the Veterans also cited drawbacks. For example, contextual stress was an ongoing concern for the Veteran: if the Veteran was unwell, this created issues as he was not able to take out his SD during those periods. Also, trying to find housing with a SD was difficult, given the lack of recognition of their benefit as a complementary health aide, alongside non-existing policies in many public spheres. The lack of societal education around SD use also occurred and caused challenges in public, where the Veterans noted tense interactions in locations such as grocery stores where people tried to remove the SD while they were working with the Veteran, or people attempting to pet or distract or pet the SD while it was working/training. Also, there were financial costs noted: veterinary care, training, food, shelter, etc; these were strains observed, but, overall, the Veterans repeatedly indicated that *despite* difficulties sometimes present, the gain of having a SD heavily outweighed the negatives.

Given the broader social and cultural factors that directly impacted the SD's ability to work efficiently alongside the Veteran, a key component of my research relates directly to critical suicidology. Recall, this framework aims to move beyond the traditional bio psychiatric and individualized approaches of suicidality. Two concerns arose in this area, but the primary, critical issue that was repeatedly mentioned that I will first address is the topic of physiology and psychiatric medication use. Once the Veterans started working with their SD, all of them were able to reduce substance use harms (often used to self manage personal pain), and also their psychiatric medications for symptoms associated with PTSD, anxiety, and/or depression.

On numerous occasions, the Veterans indicated medication reduction was a direct result of the overall improvements they had to their mental health which they accredited to working

with their SD. To elaborate, one Veteran indicated that his own suicidal ideation increased when prescribed medication for management of his PTSD/depression symptoms. He later discovered an increase in suicidality was a side effect of the medication he was on; this is the same Veteran who explained that the dog was the direct catalyst in him not self-harming, with his SD being the reason he did not follow through on a planned suicide attempt.

This short narrative covers my final research question, which aimed to better understand how the HAB can potentially assist in the reduction of suicide risk and the development of hope for “healing:” had the Veteran been prescribed this medication and did not have the SD as his primary support, there is a strong indication that he would have taken his own life. This speaks to the utmost importance of having readily available social supports on a 24/7 basis for Veterans at high risk for suicide. Considering the limitations of our current medical system, this is not always possible, which is why attainment of a SD and public, unrestricted access for the dog (such as during travel) becomes critical, as it is a literal, constant companion and material support or aide for a Veteran in distress.

As a critical suicidologist, this narrative also transforms into a larger discussion on the potential harms that may be occurring from direct biomedical intervention: are prescribing psychiatric medications that have potentially fatal side effects the best, first line of defense for those who are already at an increased suicide risk? And further to this, is the continued focus on individualized and medicalized models for those at high risk for suicide really the right approach? If you talk to the Veterans who suffer feelings of suicidality in this study, their answer would be a resounding no after experiencing the massive improvements they each had from non-biologically based interventions – as present in the form of the ongoing social support provided directly by their SD.

In line with a strengths-based approach, one may argue that the perseverance and increased feelings of hope for “healing” that were provided in the lives of the Veterans because of their SD could be viewed in an alternative light. Given the capacity for “healing” that the HAB enabled, could the Veterans suffering from PTSD now identify more so with the idea of *post-traumatic growth* as opposed to post-traumatic stress? Critical suicidology recognizes that self harm and suicidal ideation - while often distressing and potentially lethal - is also an opportunity for growth and personal transformation that can be overcome with the right tools, supports, and assistance. The Veterans cited a renewed vigor for living since the SD entered their lives, suggesting there could be a future argument made that the SDs act as the ultimate holistic healing modality for those struggling to overcome the many manifestations of trauma, but a specific empirical investigation is warranted to better understand this.

Lastly, I must return to the feedback and insight provided by the Veterans during my results presentation. While they agreed mattering absolutely resonated with their personal experiences, they felt it was a disservice to compare the significance they felt during their military service earlier in life alongside the current importance of having a SD in the present. One of the Veterans likened this to how all Veterans do not have the same “baseline” of experiences when compared to other individuals; in their perspective, everything is taken to the extreme, so what one person may consider highly significant in their day-to-day life (e.g. the value of working with a service dog as someone who needs extra assistance with daily functioning) becomes skewed given the landscape of the Veterans’ past life experiences while serving in a combat zone. I cannot clarify what some of these different experiences during service were, as they were not included in the interview transcripts I had access to, but an interesting follow-up study could explore this, as well as the Veterans’ personal

conceptualization of what “mattering” means to them pre-, during-, and post-service.

While they acknowledged that the dog is important, they reminded me that each person and their experiences are unique and different, as the SD may mean a great deal to some, but less to others. This is a crucial insight into the project and an important reminder to always consider the specificity of context when approaching a topic, while also speaking to how synergistic and complex “healing” activities can be – which will always vary between individuals.

In closing, it is important to focus on the verification of the finding that mattering *is* a concept that strongly resonated with each Veteran, suggesting its importance for later studies. One of the Veterans was moved during the results presentation, saying that this concept encapsulated, personally, what he has been missing and not understanding about his own experiences since he ended his military service. In light of this - along with the increased suicide risk that Veterans experience - it is worth incorporating mattering as a future construct in making sense of health promotion or resilience building activities for Veterans – *especially* as mattering exists more generally outside of the HAB, or may apply to other human-canine relationships. My study suggests that developing further approaches for combatting feelings of anti-mattering could be a strong, singular protective factor against suicidality among Veterans.

Chapter 7 – Conclusion

7.1 Concluding Overview

The research presented here explored the potential social significance that SDs have for Veterans at high risk for suicide. It also examined how mattering exists through the human-animal bond, and what implications these findings may have for Veteran “healing” activities. My qualitative coding data process and analysis and process led to the identification of many themes important to Veteran community members suffering from PTSD and substance use harms, with

results also bringing forth many potential research avenues for how the HAB and AAI may assist in suicide prevention activities moving forward.

Specifically, my results found that SDs can be a direct catalyst in preventing self-harm activities (e.g. substance use activities, such as an increase in alcohol or problematic drug use) and suicidality for Veterans, where the unique bond that exists between the two can elicit feelings of mattering, while simultaneously providing hope for “healing.” Further to this, the findings of my study bring forth many thought-provoking ideas about how the Veterans may perceive SDs as one of the best lines of defense against suicidality and the accompanying activities that may exacerbate this experience (such as substance use harms), with results having relevance for the field of social psychology, public health, medical sociology, and other human-animal interaction research. However, it cannot be understated that suicidality is a complex phenomenon, where the HAB and mattering have varying levels of impact depending on each individual and their life experiences.

In partnership with the larger CIHR-funded, “*The Impact of Service Dogs in the Lives of Veterans Who Problematically Use Substances*” project conducted by PI, Dr. Colleen A. Dell and Nathaniel Osgoode, the findings from my work have helped inform an evidence-based substance use recovery toolkit for Veterans in the AUDEAMUS service dog program where the concept of “mattering” has now been implemented, and this data will be shared with other service dog organizations for utilization and evaluation (see www.servicedogresearch.ca).

7.2 Strengths & Limitations

The primary limitation of my study was that it was an exploratory pilot study with a very small sample. It was a secondary analysis of existing data where suicide and mattering were not of primary consideration during the initial research design and data collection process. However,

considering the participant demographics as it relates to suicide risk and the original study aim of assessing overall “wellness,” the sample was still suitable for my secondary analysis. As a secondary research analyst, I had to be rigorous with my qualitative coding activities to ensure validity, with the justification of why I chose not to utilize ICR explained in Chapter 4.

While a randomized-controlled trial or more experimental design would have increased the internal validity, the in-depth interviews being conducted from a patient-oriented perspective allowed me to remain in-line with my critical suicidology theoretical approach where the perspective of the participant remains central to knowledge production. Additionally, presenting the findings to the Veterans to elicit feedback and suggestions strengthened my approach and allowed for additional considerations that I, as the researcher, may have missed had I not sought their additional verification on my analysis.

A primary aim of my study was to be exploratory in nature, to assess if mattering existed within the human-animal bond. Mattering is a strongly defined and measurable construct, implying there is a high likelihood to replicate these findings for broader generalizability among many Veterans and SD duos in the future (or, also, in any human and companion animal duo). If I had not been working with secondary data, and I had access to a larger sample (limitations that occurred directly due to disruptions around COVID-19), I could have employed a “Mattering to Others” formal questionnaire (Marshall, 2001; Flett, 2018). The implementation of this tool would be with two specific motivations: to further validate if mattering is a construct that can be identified between a human and animal, and to assess the level of significance of mattering as it compares across species and between the varying supports the Veterans have in their lives through this existing, validated survey.

Since suicidality and mattering were not components of intended measure within the

original study, the findings of my own research also mitigate the potential of social desirability coming from the respondents when discussing their experiences around suicide, speaking to the authenticity of how the SDs may directly and positively impact suicidality. The conclusion of my analysis regarding the important synergy behind mattering and suicidality could not be directly confirmed by the Veterans due to ethical limitations in discussing this sensitive topic with them directly, but the Veterans' quotations speak strongly to the value that SDs have in the prevention of suicide and self-harm activities.

Finally, however, it is important to realize that AAI and working alongside a SD, specifically, is still a relatively new field of study. In light of this, this entire research study serves as a starting point for numerous other endeavours relating to how SDs can impact any factor relevant to suicidality – whether that be the social, biological, or psychological dimensions - which I will elaborate on next.

7.3 Future Directions

Despite the limitations listed, a core strength in my research process was the employment of three broad and exploratory research questions, with each approaching suicidality from a slightly different angle to illuminate how mattering, social support, the human-animal bond, and hope are all interconnected factors relevant to suicide research. My findings, and the ongoing interconnectivity found through the study, speak further to the importance of identifying more socially and culturally relevant suicide risk and protective factors, along with the development of assessments based in mixed methods to better assess and measure complex social phenomenon directly beyond one particular sample or group.

This is specifically true for uniquely high risk groups, such as Veterans, whose suicidality is typically assessed based on individualized, biological, or psychiatric label markers – markers

that are traditionally understood as the primary risk datum in contemporary suicide research. However, my results showed how purely social-based interventions were important and significant in the eyes of Veterans, speaking to the need of a paradigm shift in how psy discipline researchers approach individual-focused prevention activities for those with PTSD. Further assessments for how anti-mattering manifests in the military context would be of utmost value and reduce the necessity for a focus on more medicalized approaches.

As mentioned in the latter portion of my discussion, a primary issue that arose in this research is psychiatric medication use as it potentially increases suicide risk. A long-term study could be conducted specifically assessing suicidal ideation or behavior for Veterans, comparing those using SDs as a complementary recovery approach alongside those using strictly bio-psychiatric pharmaceutical treatments to better make sense of the direct impact that SDs may have in mitigating overall feelings of suicidality. Undoubtedly, this would be a complex endeavor, but evaluation of more holistic and innovative AAI-focused therapies has the potential to be life saving – as suggested by the results I presented.

Also notable is that many of these Veterans suffered from chronic pain and other health conditions: increased emotional self-regulation (as found in the ego-extension experiences of this research) has been noted to improve experiences of chronic pain; this is relevant given that chronic pain can also worsen experiences of suicidality (Campbell, Darke, Bruno, & Degenhardt, 2015). Future research would benefit from examining the role that confounding physical variables and associated treatments have in reducing overall suicide risk for those working alongside SDs.

With the specific focus of suicide aside, there were many additional themes that arose within the data that could provide avenues for meaningful sociological analysis. For example,

social stigma: the Veterans often had uncomfortable or distressing social interactions while in public due to the lack of SD education by the general population, meaning that the presence of the dog was occasionally a source of stress. Additionally, a strong focus of my own findings was on the presence of ego-extension, so a future study could attempt to examine the impact of the labour these working dogs do – and at what cost. As mentioned from the outset of this thesis, the welfare of the animal must always remain central in any type of AAI research, especially given the heavy and emotional interdependence that occurs between the handler and SD.

Here, I acknowledge that SDs are complements to Veterans' treatment, and that SDs are not tools or devices for the sole benefit of human welfare. Each future study focusing on SDs could potentially assess the mental and physical impact that occurs to the animal from doing this type of work. This facet is especially relevant based on the reports of increased stress that occurred for both the Veteran and SD in the instances where the dogs that had initially started training turned out to be unsuitable for SD work. The AUDEAMUS training organization, as well as the researchers involved in this larger research study, recognize that not every dog enjoys working as a SD, with AUDEAMUS doing everything possible to ensure that the welfare of the animal was at the forefront of all training activities. Therefore, future studies could explore dimensions of this concern: the perspective and experiences of dog trainers or specialized animal behaviorists could be invited into studies as a core focus, which would be beneficial to any literature pertaining to the selection or matching process of SDs to Veterans in need.

7.4 Closing Remarks

In closing, I want to reiterate that the presence of service dogs in the lives of Veterans at high risk for suicide can enable feelings of mattering. This is a new finding within the literature, speaking to how mattering can now be understood as a concept that can transcend species and

manifest through human-canine interactions. Given that mattering has been explored as a useful mechanism in mitigating suicide risk by improving depression, social isolation, and feelings of hopelessness, this means that the human-animal bond may have a role to play as a cost-effective, complementary, and holistic health practice in broader suicide prevention activities.

Secondary to mattering, my study has concluded that SDs can serve a strong role in reducing self-harm, suicide risk, and overall suicidality among Veterans in a multitude of ways. This specific bond also provides a unique form of social support, acting as a mechanism in improving overall wellness while also providing hope for “healing.” While there is acknowledgement that the levels of mattering vary by individual, we also now know that mattering is a construct that may be useful in application to improving Veterans health - outside of our new understanding as it appears through the HAB.

With time, I believe the conclusion that mattering is an invaluable construct in making sense of suicide risk will hold true not only for Veterans but have implications for wider populations at high risk for suicide. Further, there is much anecdotal evidence speaking to how animals literally save lives - whether that is someone living on the street with a dog for safety, someone in a relationship where intimate partner violence is present, or even cats visiting the elderly in long term care homes - meaning there is a strong feasibility of AAI continuing to have a role and purpose in suicide prevention activities.

Given the emotional interdependence that exists between a human and dog – especially as it manifests in this study where ego-extension is a core facet of the bond - we must always ensure that the welfare of the animal remains central in this type of research. There needs to be a strong emphasis on the mutually dynamic relationship between every dog and handler, as well as the acknowledgement of the benefits and drawbacks that may occur for both when engaging in

intervention activities. As such, partnering for AUDEAMUS for this original research was intentional, as they are an organization that has strong policies and procedures for ensuring the welfare of their SDs throughout the matching and training process.

I do not, with this research, intend to suggest that all military Veterans have walked the same path, lived the same lives, had the same experiences, or suffered the same challenges. I also do not suggest that SDs will be feasible for every individual at high risk for suicide; I simply wish to highlight the highly significant role dogs *can* play for some individuals, especially in terms of preventing literal suicide attempts. The Veterans highlighted in this study had tried multiple other therapeutic routes to no avail, and the acquisition of a SD was one of their last options – one that proved to be the most effective in their personal recovery and “healing.”

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APPENDIX A

Interview Guide from Original Transcripts with Veterans with Service Dog in Training

*Only ask applicable questions based on when the interview is conducted

*Account for negative responses as well

1. Can you tell us a little bit about your relationship with _____ (service dog) at present?
How would you describe it?
If you feel connected to _____ (service dog) can you describe this?
How much time do you spend with _____ (companion dog)? Has this changed over time?
2. How would you describe your quality of life with your service dog?
Any influence from your dog? How often are you getting out of the house (and to where)?
3. How would you describe your use of substances with your service dog? Illicit and licit, including prescription drugs. Any influence from your dog?
4. How would you describe your PTSD symptoms with your service dog? (*prompts: irritable, foggy headed, present/in the moment*). Any influence from your dog?
5. How would you describe your emotional intelligence with your service dog (*e.g., identifying how you feel, looking at the glass half full/optimism*)? Any influence from your dog?
6. How would you describe your physical health? Psychological health? Social health? Spiritual health? Any influence, on each, from your service dog?
7. In what ways, if at all, has _____ (service dog) helped you? Physical? Social? Spiritual? Psychological? (*prompt: calm, support, play, pet/hold, company*) (*opposite – anxious, ignored me, left me, rejected, mean*)
8. Once we have the findings from this study, do you have any ideas about how we can share them?
9. Can you provide us with any changes in your prescribed medication regime, since the last time we spoke?

APPENDIX B

1.1 - Suicide Risk Factors

- Mood and other psychiatric disorders (particularly major depression), including certain operational stress injuries such as PTSD, depression and anxiety.
- Alcohol use and other substance disorders.
- Certain chronic physical health problems particularly neurological, chronic pain, and cancer.
- Male gender.
- Disability, functional limitations.
- Relationship difficulties, particularly intimate, and including therapeutic.
- Loss of, or insufficient social supports, including living alone and homelessness.
- Bereavement, separation, and divorce.
- Insufficient social determinants of health, for example loss of or low income, indebtedness, unemployment and job loss, loss of social supports and relationships.
- Certain personality traits. See: *VAC Suicide Prevention Framework Page 73/73*
- Family history of suicide, mental illness and substance use disorders.
- Access to lethal means, gun ownership.
- Certain cultural and racial groups.
- Suicidal attempts.
- Suicidal ideation.
- Difficulty coping with stressful life events.
- Reputation damage, threatened or ongoing disciplinary or criminal actions.
- Incarceration.
- Adverse childhood, prior abuse.
- Shift work.

1.2- Suicide Warning Signs Factors (as adapted from the APA 2003, and Rudd 2008)

- Withdrawal from family and other social activities.
- Giving away possessions.
- New interest in potentially lethal methods.
- Suicidal ideation.
- Suicidal intent.
- Lethal plan.
- Hopelessness, psychic pain, increased or unremitting anxiety.
- Shame or humiliation.
- Impulsiveness, aggression, agitation.
- Certain cognitive states.
- Discordance between statements and behaviours.

1.3 Suicide Protective Factors (as adapted from the APA 2003)

- Effective treatment for mood and other psychiatric disorders.
- Effective treatment for physical health problems.
- Effective treatment for addictions.
- Effective treatment for social problems.
- Effective management of disabilities.
- Practical safety plan for suicidal feelings.
- Access to health care providers.
- Abstinence from or responsible use of alcohol and drugs.
- Participation in Alcoholics Anonymous.
- Restricted access to lethal means.
- Children at home except in mood disorder.
- Sense of family responsibility.
- Sense of belonging and usefulness.
- Access to the social determinants of health, particularly financial.
- Pregnancy (except post pregnancy with mood disorder).
- Religiosity.
- Satisfaction with life.
- Social supports.
- Problem solving skills and coping with life stresses.
- Insight to personality traits that contribute to vulnerability.
- Good therapeutic relationship.

APPENDIX C

MATTERING: Indicators & Operationalization

Indicators: Rosenberg's & McCullough's (1981) Three Components of Mattering

1. **Attention:** feeling that oneself and one's actions are noticed by others
2. **Importance:** feeling of being significant to someone who cares about you
3. **Dependence:** Feeling of being important because others are relying upon you

Further elaborated on by Elliot & Colleagues (2004):

4. **Ego extension:** recognizing that someone else is emotionally invested in you and what is happening with or to you impacts them
5. **Noted absence** feeling that you are missed by someone
6. **Appreciation:** feelings that you and your actions are valued and matter to someone else
7. **Individuation:** being made to feel unique, special, and centered on by someone based on how they regard your true self

Ways to Convey to people that they matter (potential thematic themes)

- Inquiring often about what someone wants or thinks
- Investing time and energy into someone's wellbeing
- Expressing a belief in someone and their capabilities
- Letting someone know they are needed and relied upon
- Going out of one's way to enhance someone's wellbeing
- Wanting to know about someone's hopes, fears, interests, and values
- Reacting with compassion when compassion is clearly needed
- Acknowledging efforts, accomplishments, and achievements
- Expressing gratitude as a form of appreciation
- Sharing life events and past personal events, both positive and negative

General Mattering Scale (GSM)*¹

How much do other people depend on you?

How much do you feel other people pay attention to you?

How important do you feel you are to other people?

How much do you feel others would miss you if you went away?

How interested are people generally in what you have to say?

The GSM has four response options and is intended to measure one dimension:

(1) A lot; (2) Somewhat; (3) A little; (4) Not at all.

¹ This scale is originally developed by Rosenberg as it appears from the following: Flett, G. (2018) *The psychology of mattering: Understanding the human need to be significant*. Cambridge, MA: Elsevier/Academic Press.

APPENDIX D

Codebook

<u>MATTERING – MARKERS FOR CODING</u> RESEARCH QUESTION 2			
NAME OF CODE	DEFINITION	DESCRIPTION AND/OR CODING RULES	EXAMPLES
Attention	<i>“Feeling that oneself and one’s actions are noticed by others.”</i>	<p>Instances of visible noted or auditory attention, observation, or physical interaction.</p> <p>Can include any instance of the dog clearly focusing on the handler, its noticed presence, or verbalization by the handler that the dog is listening, being responsive or attentive.</p>	<p>A dog responding to the handler’s command; prolonged eye contact; the dog requesting physical attention or play from handler</p> <p><i>“You communicate with him; he is there; he is attentive.”</i></p>
Importance	<i>“Feeling of being significant to someone who cares about you.”</i>	<p>The core of “Mattering” - feeling that you are significant or important to the dog, or feeling valued by or towards the dog or the bond itself.</p> <p>Similar to dependence - can also imply an inter-reliance</p>	<p>The dog making the handler feel valued, appreciated; the dog being responsive to mood changes or attentive to distress</p> <p><i>“It is someone to depend on; when I am in a bad mood, she seems to find a way to cheer me up.”</i></p>

Dependence	<i>“Feeling of being important because others are relying upon you.”</i>	<p>An actionable goal or duty towards engaging with the dog or having a reason to do certain activities because it is a necessity for the dog; the recognition that the dog DEPENDS on them.</p> <p>Similarly, being given a purpose because of the relationship or interaction with the dog.</p>	<p>Taking care of the dog’s needs (food, water, vet care, exercise, etc); staying sober or managing time properly to ensure responsibilities to the dog are met.</p> <p><i>“The dog would be lost without me; it’s my responsibility to take care of the dog.”</i></p>
Appreciation	<i>“Feelings that you and your actions are valued and matter to someone else.”</i>	<p>Similar to dependence; recognition or verbalization of the significance, importance, or value that you have to the dog, or that the activities you participate in are appreciated by the dog.</p>	<p>Observable appreciation from the dog (i.e. licking, positive attention such as a tail wag, playfulness) in their presence, or positive, happy behavior when doing something that is important for the dog’s physical or mental health (walks, food, activities, social interaction, play etc)</p> <p><i>“She just came up and gave me a hug... she actually gives a f***; She can’t say it, you can’t show it in data, but you know she does [appreciate you]”</i></p>
Ego-Extension	<i>“Recognizing that someone else is emotionally invested in you,</i>	<p>Displayed understanding of the recognition or self-awareness that what happens to or with you directly</p>	<p>The handlers modifying their behavior or actions to make the dog more comfortable (such as reducing substance use, being less reactive or</p>

<p>Ego-Extension (Con't)</p>	<p><i>and what is happening with or to you impacts them.</i>”</p>	<p>impacts the dog (and vice versa)</p> <p>The acknowledgement of reciprocity of the relationship – especially as affected by mood or circumstance - or gratitude around that interdependence.</p>	<p>anxious); discussions on sadness or concern if the dog is ill</p> <p><i>“As soon as I get uncomfortable, the dog gets uncomfortable; Nobody has been able to pick up on my anxiety, but the dog does”</i></p>
<p>Noted Absence</p>	<p><i>“Feeling that you are missed by someone.”</i></p>	<p>Instances where it is clear that there has been a separation resulting in a changed behavior in the dog, or speaking about said separation and what that means/how the dog reacts.</p>	<p>How the dog reactions when the Veteran has been gone.</p> <p><i>“If I am not in the room, the dog comes to find me.”</i></p> <p><i>“When I came home, he was just waiting at the door like, where did you go”?</i></p>
<p>Individuation</p>	<p><i>“Being made to feel unique, special, and centered on by someone based on how they regard your true self.”</i></p>	<p>Instances where the dog seems to acknowledge, accept, or receive the handler as their true authentic self.</p> <p>Instances where non-judgement or unconditional love are perceived by the handler</p>	<p>Examples of the dog still being with the handlers when at their so-called “worst” (altered states through using substances, or feeling depressed, suicidal, etc) or any feelings that are verbalized suggesting unconditional love, acceptance, understanding or non-judgement of the person or behavior</p> <p><i>“He likes me for who I am; I don’t feel like a monster with him.”</i></p>

SUICIDALITY & SUICIDE RISK – MARKERS FOR CODING
RESEARCH QUESTION 1

NAME/CODE	DEFINITION	CODING RULES*	EXAMPLES
Suicide Ideation	Refers to thinking about or planning suicide.	Any verbalization of themes of suicidality (direct mention of thoughts about self-harming or self-killing) – whether past or present.	<i>“I have thought about ending my life”</i>
Suicide Behavior	Any action that could cause a person to die, such as taking a drug overdose or crashing a car on purpose.	Any verbalization of participating in, or planning to participate in, self-harming activities such as drinking or using drugs to excess – with the intent to die.	<i>“I came very close to killing myself a couple of times over the last year or two.”</i> <i>“I should have been dead [after excessive drinking]”</i>
Depression	A persistent feeling of sadness and loss of interest that can interfere with your daily functioning.	Any verbalization of depressed mood, extreme sadness, clinical depression, or immense sorrow or grief.	<i>“The inside of my head is nasty and horrible, it is just... down the drain every day”</i>
Hopelessness	A feeling or state of despair; lack of hope.	Could also be coded as depression (given overlap); any indicator that suggests that hope has been lost or a high level of despair exists – especially temporally	<i>“I have never gotten me back, I [am] never going to me again.”</i>

<p>Social Isolation</p>	<p>Lack of social connections. Social isolation can lead to loneliness in some people</p>	<p>Social isolation can lead to loneliness in some people, but is not always the case.</p> <p>Instances where the handler felt alone, without support, or alienated by others.</p>	<p><i>“I get lonely.”</i></p> <p><i>“I am home alone all day with my thoughts which is actually a really f*cking dangerous place.”</i></p>
<p>PTSD</p>	<p><i>Post-traumatic stress disorder (PTSD)</i> is a disorder that develops in some people who have experienced a shocking, scary, or dangerous event.</p>	<p>Any verbalization of experiencing related symptoms such as: <i>Being easily startled or frightened (vigilance); Always being on guard for danger (possible paranoia); Self-destructive behavior, such as drinking too much or driving too fast; Trouble sleeping; Trouble concentrating; Irritability, angry outbursts or aggressive behavior; Overwhelming guilt or shame.</i></p>	<p>Any instance speaking about or referencing a PTSD-related state or behavior (on left), especially fear, explosiveness, anxiety, or hypervigilance:</p> <p><i>“When you are going into stores and guys touch you that sets me off... I wasn’t prepared for some of the stuff that I went through and what I saw others go through.”</i></p>
<p>Substance Use</p>	<p>The use of drugs or alcohol which includes substances such as cigarettes, illegal drugs, prescription drugs, etc</p>	<p>Any instances referencing excessive, problematic and/or harmful use of substances (i.e. substance use harms), as well as the recovery from or reduction of use for said activity.</p>	<p><i>“My prescription drug use has gone through the roof; I drank the 26 of rye”</i></p>

<p>Increased Stress</p>	<p>Stress results from any type of change that causes physical, emotional, or psychological strain.</p>	<p>Instances of stress could be related to anything deemed stressful to the Veterans, or other typical stressors such as financial insecurity, unsatisfactory home life or relationships, health concerns, moving, interpersonal difficulties, loss of a friend, chronic illness or injury, etc.</p>	<p>Veterans citing issues with new medications, health concerns with their service dog, fights with their spouse, the loss of a colleague, financial concerns, etc.</p> <p><i>“She kind of sprained her ankle something she banged I guess when we were playing ball and that kind of fucked me up because it just threw my whole routine off.”</i></p>
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*There codes are being used as a multi-purpose: first, to support the notion that the Veterans are truly at high risk for suicide (all the indicators are considered high risk factors for suicidality), and secondly, that there are direct displays of, feelings around, or discussions on suicidality as it relates to those with service dogs.

HOPE, HUMAN-ANIMAL BOND, HEALING – MARKERS FOR CODING
RESEARCH QUESTION 3

NAME/CODE	DEFINITION	CODING RULES*	EXAMPLES
Hope	An optimistic state of mind that is based on an expectation of positive outcomes with respect to events and circumstances in one's life or the world at large.	Instances where the dog or bond has increased the handler's capacity to see a positive outlook, or positivity about changes or improvements to their health (whether physically, psychologically, or otherwise), personal life, or relationships.	<p>The dog or bond providing joy, happiness, or improvement as it relates to overcoming their psychological suffering or negative symptoms.</p> <p><i>"I can see a future now."</i></p> <p><i>"It has been a really good thing for me, [others] say I am different, I am getting out, I am getting out of bed."</i></p>
Perseverance	Feelings or motivation to continue doing something despite difficulty or delay in achieving success	As explained, but instances of perseverance could also infer by feelings of persistence – which may be an outcome of increased feelings of hope and resilience	<p>Any themes relating to how the dog provided a motivation to keep going or persevere through difficulty, or helped increase their capacity to cope during distress.</p> <p><i>"When you are on a low you can't even brush your teeth but that is where she comes in, she is f*cking persistent, she doesn't stop"</i></p>

<p>Resilience</p>	<p>A process where positive adaptation occurs despite exposure to significant adversity</p>	<p>Any instance where the dog or bond has helped in the development of increased tolerance for adversities.</p>	<p>The dog displaying resilience that the handler took note of, or the dog being attributed to being important in their healing journey.</p> <p><i>“If it wasn’t for her I wouldn’t be here.”</i></p>
<p>Human-Animal Bond</p>	<p>The mutually beneficial and dynamic relationship between people and animals that is influenced by behaviors essential to the health and wellbeing of both.</p>	<p>Broader instances of the human-animal bond (i.e. social support provided) outside of specific mattering, as well as markers that indicate improved emotional, psychological, and physical wellbeing of the handler and dog.</p>	<p>Looking for themes of the dogs providing social support more broadly than just the literal mattering markers. Things that the dog has done to improve the health of the handler socially, psychologically, spiritually, or how connected they feel to the dog.</p> <p><i>“I have bonded with him.”</i></p>

Assessing the Presence of "Mattering" Between a Veteran and their Service Dog

Preliminary Findings



One Health & Wellness Research Chair



Results have found that human-animal interactions can produce feelings of mattering - which is the human need to feel significant in the eyes of others - while also providing hope for healing. This is the first study to examine how mattering can transcend species to promote wellness and protect against suicidality, where the seven indicators of mattering were found to be present in the bond that exists between a Veteran and their Service Dog:

ATTENTION	IMPORTANCE	DEPENDENCE	APPRECIATION	EGO-EXTENSION	INDIVIDUATION	NOTED ABSENCE
Oneself and one's actions are noticed by others	Feeling significant to someone who cares about you	Feeling important because others are relying on you	You and your actions are valued and matter to someone else	Recognizing that what happens with or to you impacts others	Feeling unique or special because someone accepts your authentic self	Feeling that you are missed by someone
"He is there, he is attentive."	"If I get mad, she still loves me - and for me that is a huge."	"She is my purpose and I have to do everything for her." "She would be lost without me."	"We do things for each other that the other species can't do for each other, like she can love me in ways that a human can't."	"[Dog] feels my pain." "Nobody has ever been able to pick up on my anxiety, and [my dog] does."	"There is a sense of peace and a sense of calm and he likes me for who I am, he is not judging."	"When I came home, he was just waiting at the door like, 'where did you go?'"

Created by Alexandria Pavulich.



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