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INDIVIDUAL AND DYADIC CHARACTERISTICS IN INTIMATE PARTNER
RELATIONSHIPS ASSOCIATED WITH SUICIDE IN MILITARY PSYCHIATRIC
INPATIENTS

by

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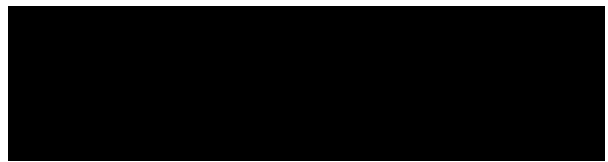
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DEDICATION

To my dear friend, who trusted me with his suicide ideation and instilled the need to understand the phenomenon early in our military careers. I'm so glad you're still here. I got your six.

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October 6th, 2020

ABSTRACT

Individual and Dyadic Characteristics within Intimate Partner Relationships Associated with Suicide Ideation and Behaviors in a Sample of Military Psychiatric Inpatients

Introduction. Intimate partner relationship dissolution is implicated in 50% of United States military suicide deaths. Despite the prominence of this proximal risk indicator, there is a lack of systematic understanding of specific individual and dyadic characteristics and dynamics within intimate partner relationships that precipitate, maintain, and/or exacerbate risk for suicide. **Purpose.** Targeting a high risk suicidal inpatient psychiatric sample at a military treatment setting, the broad objectives of this dissertation study were threefold: (1) to understand *how* intimate partner relationship dynamics and conflicts contribute to the development, maintenance, and/or exacerbation of suicidal thoughts and/or behaviors; (2) to understand romantic attachment style, relationship self-efficacy, relationship satisfaction, and conflict-induced distress as well as any potential gender differences; and (3) to understand the associations among romantic attachment, relationship self-efficacy, relationship satisfaction, conflict-induced distress, and worst lifetime suicide ideation severity. The moderating effects of an individual's romantic attachment style and relationship self-efficacy on the association between conflict-induced distress and suicide ideation severity were additionally explored. **Methods.** This dissertation study was a retrospective, cross-sectional study that used a mixed methods approach. Participants were recruited from the largest national military psychiatric inpatient setting within 2-weeks of hospital admission for a suicide-related event. Data collected consisted of information derived from a semi-structured interview and a series of self-report and clinician-administered measures. Interviews were

audio-recorded, transcribed, and thematically coded using a grounded theory approach.

Results: A total of 55 individuals with a mean age of 25 years, primarily male and Caucasian (71%), with a high school diploma or some college (78%), enlisted active duty military (94%), consisting primarily of Marines (37%), Soldiers (28%), and Sailors (26%) with a small percentage of Airmen (8%) participated in the study. All were either in a current romantic relationship or in a romantic relationship within the past 5 years. About 54.6% reported their romantic relationships sometimes, often, or always contributed to their thoughts about suicide. Qualitative analyses were performed for 29 out of 55 (53%) study participants due to saturation. When considering historical influences on their romantic relationships, the recent psychiatric hospitalization, and the development, maintenance, and/or exacerbation of their suicidal thoughts and behaviors, participants' narratives reflected some common themes. Qualitative findings demonstrated that the most commonly occurring themes highlighted inadequate intimacy, impulsive relationship formation, experiences with infidelity, and the overall stress of military separation. Moreover, retaliation was reported among 42% of respondents as the relationship motivational factor for suicidal self-harm. Quantitatively, of all variables examined, only anxious romantic attachment was significantly associated with worst lifetime suicide ideation severity. There were no gender differences for romantic attachment style, relationship self-efficacy, relationship satisfaction, and conflict-induced distress. Exploratory moderation analyses were non-significant. **Discussion:** A conceptual model of relationship-based suicide risk has been presented to inform future research based on the study's qualitative findings. The model covers historical relationship influences, relationship values, relationship dynamics while considering

contextual relational factors as well as specific relational motivational factors for suicidal self-directed violence. Additionally, given that anxious attachment style appears to play a significant role in the worst lifetime suicide ideation experience, clinical recommendations are provided for addressing this type of attachment style in individual and couples psychotherapy, particularly in the realm of suicide prevention. Future researchers are encouraged to use longitudinal methods of data collection and those involving momentary ecological assessment to allow for a more fine-grained, real-time, and frequent measurement of constructs of interest.

[Hannah R. Martinez, Ph.D., 2020]

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BRIEF OVERVIEW

For those engaged in an intimate partner relationship, the connection with one's partner is an integral part of everyday adult life and human functioning (36). When these relationships thrive, a number of favorable outcomes (e.g., improved quality of life, psychological well-being) may emerge (85; 92); conversely, when these relationships fail, a number of adverse outcomes (e.g., depression, anxiety, and suicide risk) may instead emerge (36). While intimate relationship problems have been empirically evaluated in association with various health and psychological outcomes (008; 150), to date, we continue to lack an understanding of *how* such problems, particularly among military personnel and their families, may contribute to the pathway toward suicidal thoughts and behaviors. Thus, the primary objective of this dissertation was to gain an enhanced understanding of the association between intimate partner relationship problems and suicide thoughts and behaviors among high risk suicidal military personnel through qualitative (using a semi-structured interview) and quantitative (using psychological assessment) methodology. Secondary objectives were to generate hypotheses for future research, to advance our understanding of this important topic via a conceptual model, and to test out several hypotheses based on the existing scientific evidence.

To date, epidemiologic and surveillance data for the United States (U.S.) military has indicated that the detrimental effects of failed and failing relationships are a valid and consistent factor, often precipitating a suicidal crisis; such effects have been documented reliably across age, gender, and marital status (28, 164, 165). In fact, the 2017 Annual Department of Defense (DoD) Suicide Event Report (DoDSER; 143) indicates that approximately 37% of suicide decedents and 39% of those attempting suicide have

documented intimate partner relationship difficulties within 90 days of death. Intimate partner relationship difficulties are clearly a factor in close to half of all U.S. military suicide deaths and attempts, making them one of the top stressors preceding suicidal behaviors within the DoD (143).

In addition to the DoD surveillance data, military mental health research has highlighted a similar pattern. Skopp and colleagues (165) found that U.S. Army soldiers who died by suicide were 7.2 times more likely than soldiers without suicide thoughts and/or behaviors to have experienced a failed relationship in the 90 days prior to their death. Logan and colleagues (106) found that 52% of active duty service members and 49% of Veterans who had died by suicide had documented “intimate partner problems” prior to their death, as indicated by law enforcement and/or health records for the 2005 to 2012 timeframe. These investigators further noted that even across U.S. counties identified as “medium to low density” for suicide rates, the rate of decedents with intimate partner problems was about 50%; in areas where suicide was less common, suicide deaths were associated with intimate partner relationship discord at least half of the time (104).

In another research investigation by Skopp and colleagues (164), even when controlling for traumatic brain injuries (TBIs) of any severity, alcohol dependence, and posttraumatic stress disorder (PTSD), active duty service members whose medical records indicated relationship discord versus those without documented relationship difficulties were 2 times more likely to die by suicide. Alexander and colleagues (1) compared active duty U.S. Army suicide decedents with healthy controls to determine differences on a number of psychosocial factors; these investigators found that among

several mental health diagnoses, an intimate partner relationship failure within the 30 days prior to death was significantly more likely to occur in the suicide decedent group. Notably, this between-group difference was not observed for those with a lifetime history of failed relationships, perhaps suggesting that an acute relationship stressor may be more influential than a lifetime history of relationship problems/failure preceding a suicidal crisis. Alexander and colleagues highlighted that the warning signs for suicide, specifically those associated with acute intimate partner relationship problems may be overlooked by mental health professionals and required focused attention.

Thus an important clinical challenge is that while medical and mental health professionals may typically assess for relationship conflict, they may not pay ample attention to the sequelae of such discord within the individual's life. Epidemiologic findings such as those presented in the DoDSER only report "divorce" or "relationship dissolution" as a precursor for suicide (143). The National Violent Death Reporting System (NVDRS; 106) mentions "intimate relationship problems" more specifically, but still only defines them as "problems with a current or former intimate partner that appeared to have contributed to the suicide." Because of such vague language and difficulty with discerning content from large databases, there has not been an opportunity to examine the perplexities of intimate relationship problems, despite recognizing that they do indeed increase an individual's risk for suicide (143, 106).

As a result and as mentioned earlier, we continue to lack an in-depth understanding of the trajectory and the mechanisms explaining the pathway between the development of intimate partner relationship problems and suicidal thoughts and behaviors. This is an important area of research that has direct implications for suicide

prevention and intervention endeavors within the DoD. For instance, despite the apparent connections between intimate partner relationship problems and suicide risk, research into the types of relationship dynamics and conflicts that contribute to suicide-related crises is scarce (88). There is literature that supports the link between conflict and divorce (159; 19; 132) and separately, divorce and suicide (203; 169). One study, for instance, found an association between relationship satisfaction and suicide risk, however there is only a small body of literature that has examined the types of conflicts that interact with relationship dynamics that may eventually result in a suicide crisis, and none linking relationship discord (due to conflicts within the relationship) to suicide (203; 107; 105).

One of the most comprehensive examinations of this topic within the civilian literature has been offered by Kazan and colleagues (88) who in recent years conducted a meta-analysis of intimate partner relationship factors associated with suicide. Though results were varied among sample sizes, methods, and data collection protocols, these investigators generally found that relationship separation, or the dissolution of the romantic relationship, was associated with suicide ideation - particularly for men (88). Additionally, relationship conflict, defined by Kazan and colleagues as quarrels, relationship discord, and the buildup of problems that were not resolved, was associated with suicide ideation and behaviors (88). To learn from military suicide loss survivors, LaCroix and colleagues (208) asked them to comment on the suicide prevention activities that may have been helpful in the case of their loved one's suicide. They found that though intimate partner relationship issues are frequently cited as a preceding factor in suicides, survivors did not believe mandatory pre-marital counseling would have helped (208). If relationship dissolution or impulsiveness of marriage (i.e. marriage at a young

age, marriage after a short time of knowing one's partner) were simple factors in the trajectory to suicide, it stands to reason that such counseling may have been beneficial.

In this dissertation study, conflict was conceptualized as a symptom of poorly functioning individual and dyadic characteristics within the relationship. The distress resulting from such conflict was therefore considered an indicator of the individual's overall health in the context of the romantic relationship. It was expected that increased suicide risk would be associated with the distress experienced by the individual in response to the varying problems within the relationship manifesting as conflicts, rather than the conflicts themselves. Development of such conflict-induced distress was further conceptualized as a product of the individual's overall relationship satisfaction, romantic attachment style, and relationship self-efficacy.

This doctoral research project was thus designed to examine the interactions of individual and dyadic characteristics that may increase an individual's risk for suicide ideation and/or behaviors. This is particularly of interest within the military, a population that has its own culture and customs surrounding not only suicide, but intimate partner relationships as well. LaCroix and colleagues (2009) examined data collected from a military psychiatric population at high risk for suicide, similar to the population included in the current study, and found that endorsement of current relationship stress was associated with more hopelessness, more suicide attempts, and more overall suicide risk. This dissertation study aimed to further elucidate potential personal and dyadic characteristics that may be included in the overall understanding of the development of suicide risk. Additionally, this project aimed to address the lack of knowledge regarding the nuances and intricacies of relationship dynamics that may influence one's motivation

and decision to attempt suicide. An enhanced understanding of the trajectory between intimate partner relationship discord to suicide ideation and/or behaviors can significantly improve suicide prevention, treatment, and policy efforts within the military.

The current study was based on quantitative and qualitative data collected from individuals hospitalized at the Walter Reed National Military Medical Center (WRNMMC) Psychiatric Inpatient Unit following a suicide-related event. The overall objective was to examine and establish associations among individual and dyadic characteristics and suicide ideation and behavior severity. *Chapter 1: Introduction* summarizes the public health significance of suicide globally and within the U.S. – among military personnel and Veterans, the importance of intimate partner relationship health, and the rationale for the variables examined in this study. *Chapter 2: Specific Aims and Hypotheses* lists the aims and hypotheses examined by this research project. *Chapter 3: Methods* presents the methodological process and the data analytic plan that was used to achieve this project's objectives. *Chapter 4: Results* presents the findings of the descriptive, qualitative, and quantitative analyses conducted for this project. *Chapter 5: Discussion* reviews the implications of study findings in the context of the literature, outlines relevant recommendations, and highlights the limitations and strengths of the current study.

CHAPTER 1: Introduction

THE PUBLIC HEALTH IMPACT OF SUICIDE

Around the world, suicide is the second leading cause of death among 15- to 29-year olds (200). Suicide occurs in most countries, regardless of wealth, culture, or religion (200). Approximately 800,000 people die by suicide across the globe each year, with 20 to 30 times as many surviving or aborting suicide attempts (200). The Substance Abuse and Mental Health Services Administration (SAMSHA; 174) stated that in 2013, approximately 9.4 million American adults reported serious suicide ideation. Death by suicide has increased by 24% in the United States (U.S.) over the past 15 years, with males continuing to complete suicide 4 times as much as females (127). At the current rate (13.42 per 100,000), 44,965 Americans die by suicide every year (5). According to the American Foundation for Suicide Prevention, a suicide death occurs in the context of stressors that overwhelm an individual's ability to cope (5). One such stressor pertains to intimate partner relationships.

Suicide Among Military Personnel and Veterans

Suicide is a significant public health problem among military personnel - approximately 20% of U.S. suicide deaths are accounted for by Veterans (37). In the past decade, the rate of suicide in the U.S. military has exceeded that of the civilian population (37). Further, counts of overall suicide rates may not be an accurate reflection of the pervasiveness of the problem. Stigma surrounding mental health in the military may create an environment where individuals may not feel comfortable admitting or asking for help when suicidal crises arise (23). Because of this, it is possible that more deaths in the military are attributable to suicide than originally calculated. Deaths that are marked

as “accident” or “unintentional self-injury” may be the result of suicide, particularly when the circumstances surrounding accidental death are unknown (151).

Many service members who seek treatment despite negative stigma eventually die by suicide (145). Recent results from the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS) indicate that approximately 50% of suicide decedents accessed health care, typically at a mental health clinic, within a month of their death (145). Further, at least 25% of those decedents were seen by a healthcare provider in the week before their death (145).

Interestingly, Ribeiro and colleagues (145) found that only 13.8% of suicide decedents who visited a military mental health provider in the month prior to death had suicidal thoughts or behaviors documented in their electronic medical records. This is not to say that mental health providers are not documenting suicide ideation or behavior when it occurs, but potentially that soldiers presenting for treatment are not disclosing these occurrences or perhaps the questions pertaining to suicide risk are not consistently asked across different settings.

Additionally, Bryan and colleagues looked at various aspects of military culture that may put service members at higher risk for suicide (24). Values that may increase general risk for suicide include being “mentally tough,” or compartmentalizing distress, pain, and fear for the good of the mission, collectivism, self-reliance, self-sacrifice, and a general fearlessness of death (24). Bryan and colleagues (24) also reviewed potential contributing factors for the increase and maintenance of the rate of suicide within the military based on the facets of military culture in and of itself. One facet is that prevention efforts within the military are designed to reach many people all at once- and

are thus conducted online or in mass briefings that can lose potency for the service members (24). Much of the education given in these briefings is on identifying the signs that someone is already in a crisis, rather than identifying signs that someone may be struggling, sometimes making identification too late (24). These briefings may also include the over-use of clinical nomenclature, such as *protective factors*, which can be hard to understand or apply in different settings (24). Finally, Bryan and colleagues found that it was largely assumed that briefings and increased access to care would decrease the rate of suicide (24). Unfortunately, within the military there are a number of reasons for a service member to avoid mental health care, even if they identify themselves or someone else as having a problem (24).

Another important factor to consider is access to lethal means within the military community. All service members come in contact with lethal weapons and are trained in their use, due to the nature of their occupational field (107). Further, exposure to combat or other military-relevant prolonged violence is known to increase capability for suicide, as outlined in the Psychological-Interpersonal Theory of Suicide (8). Increase in acquired capability may be due to habituation to weapons or methods of injury, as suggested by Scoville, Gardner, and Potter's (160) observations that method of injury in suicide attempts was aligned with common means in their respective branches, e.g., rope in the Navy or firearms in the Marine Corps and Army.

Further, the study of suicide risk within the military has earned a connotation that may separate it from the study of other phenomena, such as diabetes or sleep. Mental health stigma is discussed in the sections below, and stigma is one of the main contributors to the distinction made between suicidality and other problematic

phenomena. In addition to general mental health stigma however, Le Feber and Solorzano (210) looked into a subtle distinction in the way health care systems for active duty and Veteran service members view and treat those with suicidality. In response to the Air Force Surgeon General's call to create medical services guided by the lived experiences of the service members it serves, they reviewed suicide prevention and treatment policy through qualitative methods to glean the firsthand perspectives of service members affected by these policies. Though related more broadly to policy and how service members who experience suicidality relate to their access to care, this study highlighted the potential for missed opportunities in understanding the experience of suicide risk from the perspective of the service member.

Due to these aspects of military culture, it is reasonable to assert that more research is needed on identification of high-risk military patients, regardless of their endorsement of suicide ideation or behaviors. Some risk indicators for suicide are routinely screened in a military mental health care setting, such as depression, and others are less explicitly evaluated. Proximal risk indicators are more helpful for determining an individual's immediate suicide risk, as they may be the motivations or triggers in the days, hours, or minutes prior to a suicide attempt (005). Distal risk indicators can create circumstances that may predispose an individual to suicide, but occur at any time throughout development and thus provide less specific information regarding an individual's immediate risk (005). Thus, proximal risk indicators are most useful in the effort to predict when an individual known to be at risk will attempt suicide (005). More specifically, triggers are proximal risk indicators that may be unique to an individual during their time of crisis (005). Relationship dynamics may be one of these implicit,

proximal risk indicators or triggers for suicide, particularly because relationships within the military face a different set of challenges than the civilian population. Studying these risk factors and how they are connected, along with an increased understanding of how service members conceptualize their own development of risk, will illuminate directions for future study and intervention development that can be most effective and targeted.

MILITARY STRESSORS, INTIMATE PARTNER RELATIONSHIPS, AND SUICIDE RISK

Service members and their partners may be at a higher risk than civilians for stressful intimate partner relationships. A review that examined differences between high- and low-income families found that the context in which a relationship exists can influence the quality of the intimate partner relationship (128). More stressful contexts result in increased relationship problems, as well as decreased quality time together for the partners (128). The same stressful contexts can also decrease the likelihood of partners to solve relationship and external problems in positive and constructive ways (128). Such stressful contexts are common among service members due to the nature of military culture and can include deployments or other physical separations, financial difficulties, increased time commitment, and problems with living arrangements (6). These difficulties can further create hardships within work-life balance, social support, and the couples' maintenance of a healthy relationship.

In a study of male Veterans aged 18 to 34 years, intimate partner relationship problems were proximal to their death by suicide (87). In a study of Army soldiers, both number of hostile disagreements and relationship distress were associated with an increase in suicide ideation (107). In addition to this relationship, the study found that a recent divorce or separation further significantly increased suicide ideation. Soldiers with

hostile conflicts who also experienced a recent relationship separation were 9 times more likely to endorse suicide ideation (107).

A study conducted by Alexander, Reger, Smolenski, and Fullerton (1) compared the life circumstances of Army service members who died by suicide with a control sample of Army individuals without suicide ideation. While the sample size was small ($N = 106$), the researchers found significant differences between the groups such that those who died by suicide were significantly more likely to have experienced a failed relationship in the month prior to death, had a recent mental health history, a diagnosis of a mood disorder, a substance use issue, or a history of non-suicidal self-injury (1). This study showed that above and beyond the stressors of military, these issues in particular increase a given service member's potential for suicide death.

Due to the young age at which the majority of service members enter the military, some speculation about the gravity of lost relationships as a suicide risk factor has emerged given the DoDSER's most recent reports (143). For example, in a letter to the editor of the Journal of Clinical Psychiatry (206), Reger, Pruitt, and Smolenski suggest that the percentage of individuals that have a "failed romantic relationship" preceding their suicide death is explained by the fact that young adulthood is frequently characterized by transitions in such relationships. The article suggests that it is unclear whether failed intimate partner relationships should be considered an actual risk factor, given that such experiences might also be classified as a "general characteristic of this demographic group" (206). The following sections will describe many potential problems experienced almost exclusively by service members, who unlike civilians, experience such problems in a context of complexity, made more potent by the common

understanding that they may have made a commitment to such complexity at such a young age. Thus, this study will argue that regardless of the developmental stage the service member may be in, problems within an intimate partner relationship are nonetheless a suicide risk indicator (206).

Mental Health Conditions

Mental health conditions such as Posttraumatic Stress Disorder (PTSD) and Traumatic Brain Injury (TBI; 143) are more common among service members due to the nature of their work and correlate with suicide risk (75). Moreover, higher rates of mental health conditions are generally associated with higher rates of relationship discord (194, 196).

For example, PTSD is known to be associated with decreased relationship satisfaction, particularly in individuals with high adherence to traditional masculinity beliefs which is common in the active duty and Veteran populations (129e; 80; 3). Cox and O'Loughlin (129a) found that the relationship between the aspects of traditional masculinity that parallel inhibited cognitive processing ability (e.g., avoidance of intense emotions, lack of help-seeking behaviors) and relationship dissatisfaction was mediated by clinically significant endorsement of PTSD criteria. An example of one such connection is the belief that a man should be in control of a given situation, which correlates with increased hypervigilance (27). Hyperarousal of all types is further associated with decreased relationship satisfaction (164), perhaps due to its association with quicker marital conflict escalation (161) and unhelpful conflict resolution techniques (3).

Intimate partner relationships are also known to go through changes after an individual sustains a TBI (192). Research indicates a 40-55% divorce rate in the 6 to 7

years after a TBI (176; 199). While the mechanisms of this association are not known, suspected pathways include post-TBI changes in emotional reactivity, impulsivity, and increased apathy as well as decreased communication skills and changes in role dynamics (i.e., if the injured partner needs assistance; 199a). Further, a common occurrence after TBI is the development of alexithymia, or difficulty identifying, describing, or relaying emotions (132). This change is related to decreased sensitivity to emotional connectivity by the injured partner (192). Williams and Wood found that individuals with TBI reported significantly less intimate partner relationship problems than their non-injured partners, which was a source of distress within the relationship (192). The appearance of alexithymia may therefore create a change in perception of relationship equity or authenticity, discussed later in the chapter.

Further, as will be discussed at multiple points later in this chapter, substance abuse disorders are rampant within the military and generally have a negative effect on intimate partner relationships (220). Of these, alcohol use disorder is the most common. The culture of alcohol use within the military promotes drinking as a way to connect with others, a way to relax, a method of coping with stress or trauma, and a way to celebrate (220). This culture, along with stressors associated with military service, the desire to create strong bonds with fellow service members, and the availability of alcohol leads to increased alcohol use disorders (220).

Mental Health Stigma

Simply defined, stigma is prejudice: errored and negatively biased thinking toward others or the self (23). In the context of mental health, stigma may arise both publicly and privately (23). In the military's collectivistic culture that values strength and perseverance, mental health problems are largely ignored (23). The phenomenon of

stigma works such that individuals in a society choose to distance themselves from the individual performing the stigmatized behavior (such as help-seeking) physically, emotionally, and socially (23). Thus, a service member suffering from a mental health problem is likely to be aware of the social and perceived job security consequences of admitting they need help and engaging in care (23). Such views can be internalized, such that the individual views self as responsible for one's illness, resulting in guilt and shame rather than the intent to seek help (23). One study (7) found that military service member participants who attempted suicide had largely not received psychiatric care at any time during their life, a phenomenon where stigma may have affected the choice not to seek help.

In addition to the general sense that asking for help is not accepted, service members exist in environments that constantly change, be that from deployments, temporary assignments, permanent changes of station (PCS), or changes in unit, position, or job responsibilities (9). Frequent readjustment to new and fast-paced circumstances may increase an individual's stress or overwhelm and can have effects on the size and quality of their social support network. Combined with mental health stigma, many service members may suffer with these feelings alone, even if they are engaged in an intimate partner relationship. Theory about the development of suicide ideation and behavior posits that one may be at higher risk when he or she has the perception of not belonging (84). Perceptions of mental health stigma can magnify the lack of belongingness, especially in relationships where one or more partners lack structural support within their own system.

Sleep-Related Problems

Disrupted sleep can also increase an individual's irritability, and emotional reactivity while decreasing overall physical health, mental health, cognitive ability, and quality of relationships (111). Further, individuals in the military are at higher risk for developing insomnia, particularly if they have a deployment history, due to factors such as irregular work shifts, habitability problems with sleeping quarters, combat exposure, and TBIs (21). Service members have high rates of other sleep disorders that affect their overall health as well, such as obstructive-sleep apnea or paradoxical insomnia (111). Problems such as the experience of nightmares or chronic pain can severely fragment sleep, leaving the service member feeling unrested. Insufficient sleep can negatively impact the service member's ability to recover from any physical injuries as well as psychological wounds such as trauma or depression (21). Further, insomnia frequently precedes or exacerbates the experience of PTSD, depression, anxiety, chronic pain, and even suicide (21, 195).

Disrupted sleep can cause distress within a relationship as well (113). Couples are more likely to report higher satisfaction despite daily quarrels when they had more sleep (113). The sleep patterns of military couples can be affected by several factors, including working hours, geographical placement, and environmental noises (113). However, many military couples are young and have young families, meaning they also have stressors related to new family life that could affect their sleep, such as learning to share a bed with a partner for the first time or caring for young children (4).

Young Age of Marriage

The rate of marriage for individuals under 25 years old is much higher in the military than in the civilian population (17). In 2012, the average age of marriage for the

U.S. civilian population was 28.2 for males and 26.1 for females (182). While the military does not track the age of marriage for service members, the Military OneSource 2014 Demographic Report (121) found that the population of marriages within the military was made up of 32.1% junior enlisted (E1-E3) and 56.2% junior officers (O1-O3).

There is a belief that early marriage in the military is due to the structure of frequent relocations in conjunction with financial planning and support systems for the service members (111). Young service members may be marrying sooner than their civilian counterparts to ensure they have support and relationships as they are relocated every few years, among other benefits the military affords to married service members such as increased Basic Allowance for Housing (BAH), Basic Allowance for Subsistence (BAS) which are both tax-free, Family Separation Allowance, and the opportunity to live outside the military base (111). Very rarely do any civilian employers offer similar incentives for marriage.

Individuals who are married at a younger age are more likely to have relationship issues that end in divorce (221). There are a number of potential reasons for this finding. First, younger individuals are more psychologically immature; they may not have developed the decision-making or forward-thinking skills older adults have (4). Younger individuals, particularly in the military, may have a reduced pool of partners to choose from given the remote location of some military bases and the high level of accountability kept on young service members (4). Typically, younger individuals have less employment security, which is not necessarily a factor for the young service members but perhaps their partners, particularly if they start a family soon after marriage

(4). Younger individuals are also more likely to marry sooner after meeting a person than older individuals, meaning that there may be incompatible factors they aren't aware of until they are already married (4).

Negative Life Events

Negative life events are described in the literature as stressful events that an individual considers as a “challenge, threat, harm, or loss” (48). In general, negative life events as a whole are considered risk indicators for suicide (5). Negative life events are positively associated with suicide attempts and deaths across different populations (44; 202). Thus, they are an important, but not sufficient, factor in understanding the trajectory of suicide.

Negative life events have commonly been sorted into categories within the literature to determine the effects, if any, of differing types. Categories that have been associated with suicide risk in the literature are health issues (34), financial issues (073), crime or legal difficulties (22), personal losses (22) and finally, interpersonal problems- of which intimate partner relationships are a large part (191; 072). Within the interpersonal category specifically, research has shown that problems in the domains of love or marriage are most often cited in the month preceding a suicide attempt, similar to rates of crime or legal issues (202). Similarly, those who die by suicide appear more likely to have experienced interpersonal relationship or forensic events in the week preceding their death (45).

Bagge, Glenn, and Lee (5) sought to determine if any specific categories of negative life events were triggers for suicide, above and beyond risk indicators. They designed a case-crossover, within-subjects study, meaning that each participant served as their own control to account for known and unknown variables such as age, race, and

gender. The study examined life events that occurred over a period of time prior to and on the day of an eventual suicide attempt (5). The team was interested in comparing the differences in events on the day of a suicide attempt with a day where the individual did not make a suicide attempt (5). Participants were given a list of 33 negative life events to review, with six total categories: spouse or partner relationships, family or social relationships, community relationships, work or school, crime or legal, financial, and health (5).

Aiming to separate proximal from distal risk indicators in manifestation of suicide ideation or behaviors, the results of the study showed that interpersonal negative life events involving an intimate partner were not only proximal risk indicators, but were also triggers for suicide attempts (5). Of note, investigators did not test for the moderating effect of a Major Depressive Disorder diagnosis due to the high volume of participants with such as diagnosis (5). A different study, however, found that interpersonal problems in conjunction with a recent crisis accounted for approximately 10.5% of suicide deaths across years 2003 to 2008 in the absence of mental health diagnoses (105).

Interestingly, Bagge, Glenn, and Lee (5) found that the relationship between intimate partner negative life events and suicide attempts was more salient for those who did not endorse suicide attempt planning, indicating that such an event may be more dangerous due to the degree of impulsivity involved. These findings suggest that while intimate partner relationship difficulties are not necessarily the only important risk indicator for suicide, they may be a crucial intervention point for clinical and healthcare settings and that there is nuance within the intimate partner relationship not captured by relationship status.

While interpersonal negative life events are common prior to suicide death, they are also common among the general population. For those who will attempt suicide, there are certain circumstances that transform a negative life event into a trigger for suicide, making it lethal. Thus, determining what causes a negative life event to become a catalyst for suicide death will inform the trajectory from relationship discord to motivation for suicide better than examining the most common interpersonal relationship conflicts alone.

Social Support

Healthy intimate partner relationships are known to play an important role in an individual's mental and physical health (78, 8). Research has shown that individuals who are socially isolated are at an increased risk for health problems throughout their life (150). The negative health effects of social isolation have been shown to be comparable to the effects of cigarette smoking, high blood pressure, obesity, and a sedentary lifestyle (150). Relationship health has also been associated with well-functioning cardiovascular, endocrine, and immune systems (150). In fact, across different populations, one study found that non-married individuals had higher rates of mortality overall when compared to married individuals (150). An individual's perceived health is often associated with their partner's health (193), and married individuals have been found to suffer less from specific ailments, such as chronic pain, arthritis, and ulcers (92). They are even more likely to engage in daily health promoting behaviors, like exercise and a balanced diet (85).

Marriage alone is not the only protective factor, however. An important distinction within the literature is that while married individuals are typically healthier, the quality of the relationship is a better determinant for health (67). Some researchers

suggest that the positive health effects of marriage are only present for marriages of at least a “medium or higher” quality (116) and have even cautioned (somewhat humorously) those who suffer from poor health or mood from finding someone to marry simply as a strategy to solve those problems (59). There is evidence in the literature that suggests remaining in an unhappy relationship can have negative overall health effects in many of the same areas that are positively impacted by a healthy relationship (150).

As outlined above, relationships with others play an integral role in both mental and physical health. Intimate partner relationships are thus a unique and perhaps necessary part of life. Above and beyond a romantic partner, individuals typically have few other relationships from which they feel an intimate bond. Social support is operationalized by Cobb (39) as any relationship that leads an individual to “believe that he is cared for and loved, esteemed, and a member of a network of mutual obligations.”

Burton-Chellew and Dunbar (26) were interested in determining the social costs of engaging in an intimate partner relationship. In their study, they used two different websites to ask 540 individuals to list up to 15 names of people they could turn to “in times of severe emotional or financial crisis.” They found that individuals engaged in intimate partner relationships averaged a significantly lower number of social supports than those who were not (26). Further, the effect of an intimate partner relationship was significantly detrimental to social support from both related and non-related others (26). Intimate partner relationships were considered particularly “costly” to maintain, citing as an explanation the period of “dyadic withdrawal” at the onset of a romantic relationship wherein the individuals spend less time with their friends and more with their partner (74).

These findings are important to the literature because they indicate that while social support is necessary, individuals in intimate partner relationships invest more of their energy in maintaining that specific relationship and neglect other avenues of social support (26). While evolutionarily effective, this leaves the individual without quality social support should the intimate partner relationship deteriorate or dissolve, as seen in the individuals studied by Burton-Chellew and Dunbar who engaged in extra-pair relationships (26). Thus, such loss of a partner so heavily invested in, can potentially deprive the individual of a sense of belongingness and put him/her at risk for mental and physical health difficulties. When the relationship is healthy and enjoyable, these risks are mitigated (116). Further, the impact of the quality of social support is known to differ based on gender, like several other suicide risk factors (8).

Gender Differences

Consistently seen in the literature is the notion that males benefit more from the protective factors of intimate partner relationships and subsequently are more negatively impacted by their dissolution than females (8, 181). Risk for suicide after an intimate partner relationship dissolution is consistently higher for males (201). Wyder, Ward, and De Leo (201) suggest this may be because males are more likely to be socialized to depend on their intimate partner for emotional support than females, who tend to seek social and emotional support from a network of friends and family. Males are also more likely to demonstrate a host of emotional responses and behaviors that are known to be associated with increased suicide risk, such as increased aggression in response to negative emotion (68), engagement in avoidant coping strategies (183), and decreased help-seeking (79) that may be exacerbated upon the dissolution of an intimate partner relationship.

In the literature regarding perception of partner impact on health, women are more likely to endorse higher impact of their partner on their own health, specifically in maintaining physical activity and positive self-esteem (008). Females may even experience a decrease in physical health after being married, depending on the level of labor expected by gender normative separation of housework and child-rearing (114). It is thus possible that females may recover from a separation quicker if they had a large portion of their physical and mental health invested in an unhealthy relationship. Research also suggests that females tend to monitor their intimate partner relationships more closely for dysfunction and discuss such issues earlier, suggesting that relationship dissolution is not as surprising for females as it may be for males (4). In fact, females are more likely to initiate divorce and to have more complex and detailed reasons for their decision (95).

With regard to suicide notes, literature is mixed on who is more likely to cite intimate partner relationships. In Kazan and colleagues' review of the literature, one study reported that suicide letters from males were more likely to focus on finances, whereas letters from females had an intimate partner relationship focus (97). An older study found, however, that males were more likely to report romantic problems and females typically cited unbearable pain in suicide notes (89). Thus, gender differences may be one of the least well-understood individual differences in the consideration of the association between intimate partner relationship conflict and suicide.

INDIVIDUAL CHARACTERISTICS RELEVANT TO INTIMATE PARTNER RELATIONSHIP FUNCTIONING

Before an individual ever engages in an intimate partner relationship, he or she may have constructed a set of individual cognitive (e.g., beliefs and values), affective,

and behavioral patterns or characteristics associated with one's relationship expectations, ideals, and functions. These characteristics are the product of the individual's biopsychosocial history, developmental trajectory, and lifetime interpersonal experiences (86; 198). Such characteristics are important to closely examine as they influence how individuals think, react, and behave – i.e., overall function – in the context of an intimate partner relationship. In the sections below, a review of several important topics relevant to intimate partner relationship functioning is provided to guide the discussion about the dissertation aims and hypotheses.

Attachment Style and Romantic Attachment Style

Attachment theory, originally proposed by Bowlby (2), describes attachment as an affectional bond developed between a child and his or her parent or caretaker in early life. Secure attachment is typically the goal, where the child feels confident to be independent in his or her world while feeling assured that one's needs would be met (2). Variations from secure attachment occur when there are changes in the child's perception of abandonment or neglect from his or her caretaker (2). These early relationship experiences shape the individual's childhood and can have a profound impact on personality development in domains such as gender role formation and socialization and the individual's functioning in adult intimate partner relationships (98).

In intimate partner relationships, there are two types of attachment that prove to be problematic when considering relationship health: (1) avoidant, and (2) anxious attachment. Individuals with an avoidant attachment style are less attached to others both emotionally and psychologically, primarily due to worries about their partner becoming unavailable to them (163). Individuals with an anxious attachment style may fear

rejection from others and appear overly attached or overbearing to their intimate partners (71).

Anxious romantic attachment style is thought to be a result of hyperactive monitoring for rejection, where an individual is hypersensitive to signals of possible threat within their relationship (101). As a result, individuals with an anxious attachment style might work tirelessly to maintain closeness with their intimate partner, which leads to a higher frequency of negative emotional experiences – along with a higher frequency of positive emotional experiences – when compared to individuals with an avoidant attachment style (101). Related to these tendencies is the finding that individuals with an anxious attachment style are more likely to experience higher levels of conflict within their intimate partner relationships than those with an avoidant or secure attachment style (101). Further, individuals with an anxious attachment style may be ambivalent about commitment to their intimate partner relationship and this finding seems to be consistent across a number of different nations (82). Anxious attachment styles are also related to an increase in depressive and anxious symptoms, particularly following the experiences of stressors in daily life (81) and were associated with a history of previous suicide attempts (103).

Specifically, in males, avoidant attachment style has been found to relate to perceptions of poor or disrupted childhood bonding with parents (98). This is important to note when addressing adult intimate partner relationships and suicide risk, as difficulty or inability to regulate negative emotions (e.g., worry or rumination on the worry) is related to increased suicide risk and is a characteristic of the association between low childhood parental bonding and the development of an avoidant attachment style (98).

Thus, in an adult intimate partner relationship, an avoidant attachment style may influence the development of suicide risk during relationship conflict or dissolutions in part because of the likelihood of the individual's difficulty regulating his or her emotions (98). Further, an avoidant attachment style is associated with overall lower commitment to a given intimate partner relationship (82).

Research has shown that individuals with different attachment styles may have differing goals for their intimate partner relationships. For example, individuals with an anxious attachment style tend to prefer long-term relationships, perhaps due to the fear of being abandoned by their partner, whereas those with an avoidant attachment style may be more likely to engage in an affair due to their fear of intimacy and lack of interdependence (139). Further, the two styles of attachment have been shown to affect people differently when they are engaged in dissatisfying intimate partner relationships. Interestingly, when an individual with an anxious attachment style feels dissatisfied with their relationship, they tend to experience higher levels of loneliness, whereas those with avoidant attachment styles are more likely to experience physical distress in the form of negative overall health symptoms (139).

Levi-Belz and colleagues conducted a study comparing individuals admitted to a hospital following a suicide attempt who were classified as having a medically serious or non-serious suicide attempt (100). An attempt was classified as medically serious if the individual required surgery under general anesthesia or at least 24 hours of care in the Intensive Care Unit (ICU; 100). These investigators found that not only were anxious and avoidant attachment styles indicated in more lethal suicide attempts, but that the findings remained significant after controlling for symptoms of hopelessness, depression, and the

experience of negative life events (100). Further, Levi-Belz and colleagues showed that the relationship between anxious or avoidant attachment styles and medically serious suicide attempts was mediated by the interpersonal events self-disclosure and perceived loneliness, suggesting that interpersonal struggles could enhance an individual's risk for death by suicide when they have an anxious or avoidant attachment style (100).

Similar to attachment styles which are developed through an individual's early interpersonal experiences, developmental experiences can also shape how capable an individual feels in exacting change on the people and circumstances that surround him or her. The set of beliefs that emerge regarding these experiences are thought of as an individual's self-efficacy beliefs, which are present within intimate partner relationships as well.

Self-Efficacy and Relationship Self-Efficacy

Self-efficacy as a construct, defined broadly as an individual's belief that he or she will be able to achieve particular actions through his or her own organization and execution, is a protective factor for suicide (034). Bandura (13) pioneered work in the study of self-efficacy and how it relates to behavior and individual expectations. Typically, individuals with high levels of general self-efficacy feel interpersonally competent, in control, have higher self-esteem, and a better ability to cope (13). Positive overall self-efficacy beliefs have been associated with relationship satisfaction and commitment (172). Positive overall self-efficacy has been found to increase the use of maintenance behaviors in intimate partner relationships (discussed later in the chapter), which may be the mechanism through which relationship satisfaction is improved (186).

Pompili and colleagues (141) conducted a study with undergraduate students hypothesizing that general self-efficacy would mediate the relationship among

aggression, impulsivity, and suicide ideation. Findings indicated that individuals with extremely high self-efficacy who also endorsed extremely high aggression and impulsivity, had stronger reasons for living and thus presumably less of a risk for suicide (141). Interestingly, increased general self-efficacy was related to a decrease in risk for suicide, but only for females (141). Males, on the other hand, showed an increase in suicide risk as general self-efficacy increased (141). Another study's findings suggested that, particularly for ethnic minorities, the positive effects of self-efficacy may be intertwined with social support (178) and the ability to obtain resources (120).

Moreover, relationship self-efficacy is a specific concept that applies to intimate partner relationships. Relationship self-efficacy is defined as one's ability to resolve conflict and engage in positive behaviors with one's partner (46). Because self-efficacy tends to be an enduring trait, relationship self-efficacy remains mostly constant, even in individuals who are not currently in an intimate partner relationship (146). As a trait, relationship self-efficacy is conferred through developmental experiences in intimate partner relationships related to independence (13) and persistent self-attributions (35) as well as one's assessment of difficulty with romance (146).

Relationship self-efficacy is an essential individual characteristic that impacts the dyadic relationship because it affects an individual's intentions, behaviors, and adaptations to change (13). For that reason, relationship self-efficacy has an effect on overall relationship quality and longevity (147). Higher relationship self-efficacy beliefs (more specifically, believing that one has the capability to resolve relational conflict) have been associated with a more positive view of one's partner, which increases relationship satisfaction (57) as well as lessens intimate partner relationship conflict (46).

In contrast, high relationship self-efficacy may be detrimental to the mental health of an individual who is in an unhappy or unsafe intimate partner relationship. For example, individuals with high levels of relationship self-efficacy may remain in an aggressive or abusive relationship because they feel confident to affect the course of conflict and prevent future occurrences (11). Individuals engaged in abusive or aggressive intimate partner relationships who have low relationship self-efficacy might doubt their ability to predict or change the abuse in the future, and thus are perhaps more likely to leave the relationship (11). Indeed, Baker and colleagues (11) showed that the relationship between intimate partner violence and relationship dissolution was mediated by relationship self-efficacy such that individuals with low relationship self-efficacy were more likely to dissolve their relationships. They also found, however, that high relationship self-efficacy was significantly related to a decrease in intimate partner violence over time, though it was not completely eradicated from those relationships (11).

Similarly, high overall self-efficacy is associated with evasion of help-seeking behaviors and rejecting external intervention, which may play a role in increased suicide risk, particularly within intimate partner relationships that have become unhappy or unbearable (140). Importantly, relationship self-efficacy above and beyond general self-efficacy has not been studied in relation to suicide risk. An important factor in how prominent an individual's self-efficacy beliefs are in an intimate partner relationship may be related to the individual's ability to regulate his or her own emotional reactions as well as the individual's ability to react to the emotions of the partner.

Emotion Regulation

The ability to regulate emotions is not a skill that is taught in a standardized way; rather it is acquired through interactions and experience (7). Anestis and colleagues (7)

define emotion dysregulation as the occurrence of four components: “(1) a lack of awareness, understanding, and acceptance of emotional experiences, (2) lack of access to adaptive means for altering the intensity and/or duration on an affective experience, (3) an unwillingness to experience emotional distress as part of pursuing goals and, (4) an inability to persist in goal-directed behaviors when upset” (7, page 604).

In relationship conflict, specifically, individuals’ abilities to regulate their emotions in reaction to a negative comment from the partner is integral. When successful, individuals respond in a neutral or non-negative way to the partner’s negativity and could successfully de-escalate the conflict (55). With poor emotion regulation in one or both partners, the likelihood of more frequent and more intense conflicts is higher (55). Within an intimate partner relationship, emotion dysregulation can increase reassurance-seeking, aggression, and other behaviors that might be viewed as self-sabotaging, such as excess substance use, binge eating, and non-suicidal self-injury (9). Further, emotion dysregulation increases risk for suicide ideation (7, 135).

All the individual characteristics mentioned thus far are traits that develop through the course of an individual’s life, differing based on exposure to varying interpersonal and biopsychosocial experiences and how the individual learned to react within those circumstances (7; 13; 163). An individual’s attachment style, self-efficacy beliefs, and emotion regulation skills are thus relatively stable throughout the lifetime, affecting their beliefs and perspectives on the world (86: 198). The following individual characteristics are conversely less stable characteristics and emotions that are subject to change throughout the life course and even within an intimate partner relationship, though many of them are rooted in the above developmental beliefs (135). First is the

experience of loneliness, which is strongly associated with an individual's attachment style.

Loneliness

Attachment is a strong predictor of loneliness within intimate partner relationships (139). Loneliness can be either a social loneliness, wherein one perceives himself or herself to be devoid of an adequate social support network, or emotional loneliness, wherein one perceives himself or herself to have a lack of intimate attachments (189). Loneliness is very commonly associated with attachment style and is thus relevant to the understanding of intimate partner relationship attachment and can be negatively associated with an individual's satisfaction with one's intimate partner relationship (139). There is a well-known positive correlation between loneliness and insecure attachment styles (i.e., anxious or avoidant; 139) that manifests differently for the two types. For individuals with an avoidant attachment style, loneliness can occur as a result of purposefully distant relationships created by the individual (139). For those with anxious attachment styles, loneliness can occur due to the realities of relationships - meaning that the partner cannot offer the individual the amount of reassurance or support he or she believes is needed – this may eventually result in feelings of loneliness (139).

In terms of suicide risk, loneliness has long been thought of as a key contributor, having been studied in numerous high-risk populations to include Veterans (123), psychiatric patients (140), adolescents (156), college students (51), and the elderly (167). The literature shows that in these vulnerable populations, loneliness is apparent throughout suicide crises (140, 156, 51). However, loneliness is not only a risk factor for vulnerable populations but can have a negative impact on the mental health of the population overall.

Several general population studies have found a dose-response relationship between loneliness and suicide such that increases in the experience of loneliness are strongly associated with increases in suicide ideation and behavior (171; 173). Stickley and Koyanagi found that there was a significant positive relationship between loneliness and all forms of suicide ideation or behavior (171), and Stravynski and Boyer found that individuals who endorsed subjective loneliness were 12 times more likely to attempt suicide (173). Notably, they found that the relationship between loneliness and suicide ideation or behavior was strengthened when the individual was also experiencing other forms of psychological distress, and that this relationship was stronger in males (173). Further, Stickley and Koyanagi found that loneliness remained a significant predictor of suicide ideation and behavior even after controlling for several common mental health disorders, such as depression and anxiety (171).

One such stressor that may exacerbate the danger of experienced loneliness is the stress that accompanies the thought that one's partner may be emotionally or physically invested in someone else. If an individual is feeling lonely, feelings of jealousy may have an additive effect on negative cognitions related to social support (e.g., self-esteem, self-worth), making the susceptibility to jealousy another important individual characteristic in the consideration of the trajectory between relationship discord and suicide.

Jealousy

Jealousy is defined as the “perception of a threat of loss of a valued relationship to a real or imagined rival which includes affective, cognitive, and behavioral components” (165). As such, jealousy can be a very painful emotional experience within an intimate partner relationship, but is typically manageable (14). The literature is mixed on the effect of jealousy on overall relationship satisfaction, but one study found that jealousy

was predictive of positive relationship satisfaction when moderated by the amount of love experienced by each partner (52). The study suggested that jealousy, when accompanied by higher reports of love for the partner, was indicative of higher relationship satisfaction (52). However, while some jealousy within an intimate partner relationship might be expected, jealousy that results in behaviors that might be considered disrespectful to the partner are problematic (i.e., checking emails or text messages, stalking behavior; 94). The tendency toward chronic jealousy is related to the individual's attachment style (particularly avoidant) and long-standing personality traits (94). There are two identified types of jealousy that are concerning for an intimate partner relationship: obsessive and delusional jealousy (14).

Obsessive jealousy is characterized by behaviors and cognitions similar to other obsessive-compulsive disorders in that the individual may experience repetitive, intrusive, and uncontrollable negative thoughts related to their partner's fidelity (14). These thoughts often result in excessive compulsive behaviors that can negatively affect the quality of the relationship, such as intrusive checking or the constant accusation (14). Delusional jealousy is characterized by the individual's extreme affective activation in response to unfounded, unrealistic, or otherwise fabricated accusations of their partner (14). These individuals will often conduct biased confirmatory searches of their partner's actions, believing an illogical accusation is founded (14).

In the literature, jealousy is not typically mentioned in the context of suicide. While obsessive jealousy has been loosely associated with suicide ideation, most published work addressing suicide in the context of jealousy examines murder-suicide (14). In fact, jealousy as an individual characteristic is more commonly associated with

homicide as well as intimate partner violence and substance abuse and commonly occurs in the context of a larger psychotic disorder (126).

Both loneliness and jealousy are emotions commonly experienced subjectively (141) that can subsequently affect the health of an intimate partner. However, the ability to understand one's own experiences and reactions related to these emotions and the emotions of others is a process that occurs throughout personal and interpersonal interactions to either help or hinder the health of a relationship. This skill is called emotional intelligence.

Emotional Intelligence

Emotional intelligence is one's ability to perceive and understand emotions in others without explicit notification, and to be able to effectively and sensitively interact with those emotions (153). Alternatively stated, emotional intelligence is the ability to receive, read, and adapt to the nonverbal emotional signals of others. There are three categories that make up emotional intelligence as outlined by the researchers who piloted the construct, Solovey and Meyer (153): (1) appraisal and expression, (2) regulation, and (3) the ability to use emotion in problem-solving. The development of these abilities is linked with attachment style and requires the individual to be self-aware in regards to emotions and affect (93).

Emotional intelligence is strongly associated with relationship satisfaction in the literature, suggesting that better understanding and perception of both the individual's own emotional reactions and those of their partner may be important aspects of relationship satisfaction (112). Individuals with higher emotional intelligence might also seek more compatible partners to begin with, utilize more emotionally sensitive behavior

during conflict, and might even unintentionally teach their partner to have more emotionally intelligent responses (112).

In a small study (N = 100), Moayedi and colleagues found that individuals who attempted suicide were more likely to have low emotional intelligence when compared to healthy controls (192). In an effort to evaluate the clinical utility of emotional intelligence, Ciarrochi and colleagues delineated emotional intelligence into two categories: (1) *emotional perception*, or having an understanding of one's own emotions and how to use them to effectively communicate, and (2) *emotion management*, or the ability to recognize emotions in others and respond appropriately (38). They examined these constructs in the context of daily stress, hopelessness, depression, and suicide ideation (38). Ciarrochi and colleagues found that daily stressors interacted with emotion perception such that individuals with high emotion perception were more likely to report depression, hopelessness, and suicide ideation (38). Daily stressors were also found to interact with emotion management such that individuals with lower emotion management skills were more likely to report suicide ideation (38).

This suggests that while high overall emotional intelligence is a protective factor, being overly aware of one's own emotions or feeling uncomfortable in the management of others' emotions could increase risk for suicide (38). This pattern of beliefs about emotions may be especially present in individuals who have perfectionistic traits, as control over the self and others is often a central tenet of such beliefs.

Perfectionism

Individuals who expect themselves to achieve unrealistic expectations within their relationships may have perfectionistic traits (109). These individuals tend to have rigid demands on themselves and their intimate partner which can cause strain in intimate

relationships (109). While research has shown that perfectionistic tendencies are not necessarily related with decreased relationship satisfaction, believing that love, acceptance, or support from an intimate partner are contingent upon meeting unrealistic expectations can cause distress and even depression in the perfectionistic partner (109). Expecting perfection from a partner in an unrealistic or entitled way is also associated with relationship discord (109).

Perfectionism can lead to conflict in intimate partner relationships as a result of these rigid demands and personal beliefs (109). Because true perfection is not obtainable for either the perfectionistic individual or their partner, the perfectionistic partner may feel slighted or that they are a failure when their expectations are not met (109). Such interpretations often lead the perfectionistic partner to react with anger or hostility, resulting in intimate partner relationship conflict and even depression over time (109). A study conducted by Mackinnon and colleagues (109) showed that the association between perfectionism and depression as it relates to intimate partner relationships was due in large part to the tendency for perfectionistic concerns or demands to both generate more negative partner experiences, such as conflict, and to decrease their positive partner interactions, such as intimacy (109).

These intimate partner conflicts are also likely having a negative effect on the perfectionistic individual themselves, as well. While perfectionism has been vaguely linked with suicide as a risk factor of its own, Rasmussen and colleagues showed that the relationship between perfectionism and suicide ideation is mediated by perceived burdensomeness (144). Rasmussen and colleagues conclude that individuals with perfectionistic traits might often fail to reach the unrealistically high goals they set for

themselves within their relationship, resulting in overwhelming feelings of incompetence (144). The perfectionistic view of such failure that follows might be one of being a burden to his or her partner due to a lack of ability to reach one's own goals, resulting in increased suicide ideation (144). This association remained even after controlling for depression, and highlights that while many aspects of perfectionism might increase risk for intimate partner conflicts, the aspect most linked with increased suicide risk is rooted in interpersonal perfectionism (144).

Summary of Significance of Individual Characteristics for Proposed Research

Many individual factors affect one's participation in an intimate partner relationship. As an individual engages with a romantic partner, he or she brings personal biopsychosocial vulnerabilities and previous interpersonal experiences which result in varying types of emotion regulation, attachment styles, and self-efficacy beliefs. This lifetime history may affect one's susceptibility to and experience of loneliness, emotional intelligence, perfectionism, and jealousy. From the literature discussed above, emotion regulation, attachment style, and self-efficacy are variables in an individual's life that are influenced throughout their developmental history and certainly before their first relationship. The group of secondary emotions and cognitions (e.g., emotional intelligence, perfectionism, loneliness, and jealousy), while each related to suicide individually, could also be construed as manifestations of the individual's developmental beliefs regarding relationships.

Thus, in studying the trajectory between intimate partner relationships and suicide, the current study focused on variables relevant to relationship functioning that are developed across the lifespan. This includes relationship self-efficacy and romantic attachment style, but not emotion regulation. Emotion regulation, or rather, emotion

dysregulation, is a known risk factor for suicide (7, 135) and has been studied in relation to suicide (7) as well as relationship functioning (55; 9). However, unlike attachment style and self-efficacy, emotion regulation does not appear to have any relationship-specific aspects. To date, there is no research that suggests the factors of emotion regulation are different in the context of an intimate partner relationship than in everyday life. Given that self-efficacy and attachment style affect intimate partner relationships above and beyond their general effect on the individual, these variables were the primary focus.

When relationship discord develops, it is thus possible that the individual is subject to an anxious attachment style along with high relationship self-efficacy. An anxious attachment style predisposes the individual to more frequent, intense, and subjectively distressing relationship conflict through his or her need for reassurance. Paired with this attachment style, individuals with high relationship self-efficacy might expend more effort in “fixing” their relationship or their partner to meet their unrealistic standards. Because these standards cannot be met by the partner, the individual may come to believe that they will never have a good relationship.

Therefore, individual characteristics are certainly operating within relationship discord. However, one must not overlook the importance of dyadic characteristics of the intimate partner relationship itself. Similar to theories describing “groupthink” and the ability of a group to take on a personality of its own, intimate partner relationships may develop a dynamic greater than the sum of the individual’s contributions (144a).

DYADIC CHARACTERISTICS RELEVANT TO INTIMATE PARTNER RELATIONSHIP FUNCTIONING

Individuals engaged in an intimate partner relationship create a dyad, which is to say that the sum of the relationship is more than the parts of the individuals alone (109). An intimate partner relationship requires the commingling of different personalities, and thus can develop its own positive and negative traits above and beyond those of the individual partners. Thus, the dyadic relationship is thought to be what exists in the interpersonal space between intimate partners (109). Relationship dynamics are the aspects of this interplay between individuals pertinent to the current study - they are aspects specific to the interpersonal interactions between intimate partners rather than either partner alone.

Relationship Satisfaction

Relationship satisfaction is a *subjective* assessment of the intimate partner relationship from the partners based on their comparison with a healthy relationship prototype (183). It is described in the literature as the affect experienced by both partners in a relationship and the perception that one's partner is meeting their needs (139). Relationship satisfaction is important in understanding the nuanced trajectory between relationship discord and suicide because it is a reflection of the individual's contentment with the relationship. Arguably, if an individual is satisfied with his or her relationship, the relationship would not dissolve or influence the individual to attempt suicide. The level to which each member of a couple is satisfied with his or her intimate partner relationship affects and is affected by how one views relationship quality.

Relationship Quality

Determining relationship quality is done by objectively evaluating the presence or absence of specific actions or interactions within the relationship compared with commonly agreed upon qualities of healthy intimate partner relationships (183).

Relationship quality has many definitions in the literature, but Kazan and colleagues (88) compiled 51 articles into a systematic review and from those, determined commonalities between different definitions. Key aspects of relationship quality are thus equality, authenticity, and communication (88).

Equality in an intimate partner relationship refers to the contribution to the relationship made by either partner, which in good relationships is perceived as roughly equal (49). Lack of equality in a relationship is also termed “unfairness,” referring to issues within the intimate partner relationship where one partner feels taken advantage of (49). An example of such unfairness or inequality, particularly relevant in the military, might be frequently moving for one partner’s job, leaving the other partner to struggle to find work in each new location (49).

Authenticity in a relationship refers to the congruence between thoughts, feelings, and actions between intimate partners (166). A simple example of this would be that one partner believes the other has long-term intentions and that he or she should meet the parents, but later realizes that the partner does not want to divulge existing relationship status to his or her parents because of feelings of uncertainty about the robustness and longevity of the relationship (166). Notably, incongruence in authenticity affected only female participants who reported suicide ideation, which may be due to the female role-identity and the connected importance of interpersonal relationships (166).

Communication in an intimate partner relationship refers to the partners’ beliefs that they are being heard and understood by one another. An example of deterioration in this area is the finding that the absence of positive communication interactions between couples, results in their becoming rigid and defensive in subsequent communication,

regardless of the tone (20). As the quality of communication between partners deteriorates, suicide ideation increases for both genders (20). One potential reason for this association is the tendency of frequent negative communication to predispose couples to adopt defensive roles in response to conflict or perceived criticism, which may prevent the couple from resolving conflict and gleaning support from one another (30).

Relationship quality can be predicted by the suitability of partners' social statuses and social roles, suggesting that a mismatch can result in lower quality relationships (61). While possibly concrete, the differences in partners' social statuses may reflect a deeper conflict rooted in commitment to the relationship. As commitment to the relationship is known to be a predictor of relationship satisfaction (16), an unequal commitment by either partner can result in two types of distress. First, an individual may feel more committed to the relationship than their partner is, which may result in increased conflict with the locus of control being the partner, with views such as "She doesn't love me anymore." The second is that the individual feels less committed to the relationship with their partner, resulting in increased conflicts with an internal locus of control and views such as "I am hurting her." Both are expected at some degree in any intimate partner relationship. Individual beliefs about the commitment to the relationship, as well as relationship quality and satisfaction influence the amount of effort the individual devotes to maintaining the status of the relationship. The partner may consciously or unconsciously contribute to the positive continuance of the relationship through behaviors such as collaboration and shows of affection, known as relationship maintenance behaviors.

Relationship Maintenance

The concept of relationship maintenance emerged to account for the interactions within intimate partner relationships that perpetuate the relationship and prevent its dissolution (29). Essential for healthy relationships, relationship maintenance is defined as the efforts afforded by individuals in a relationship that promote the health, continuation, and stability of the relationship (50). Canary and Stafford (29) pioneered the work in relationship maintenance behaviors, outlining five categories: (1) positivity, (2) openness, (3) assurances, (4) social networks, and (5) sharing tasks. Perceptions of these behaviors in one's partner are more strongly correlated with relationship satisfaction than one's perceptions of own maintenance behaviors, suggesting that healthy relationships are comprised of partners who recognize and value each other's maintenance behaviors (132).

Couples who demonstrate positive relationship maintenance behaviors may be more adaptable and resilient to life stressors and changes, which – handled poorly – can be detrimental to relationships (132). The increased use of assurances and openness are positively correlated with relationship length in one study (186). More of these behaviors have been seen in couples who are seriously dating or married than in those who are dating casually – specifically openness, assurances, tasks, and networks – suggesting that intimate partners intuitively engage in relationship maintenance only when they anticipate a future with their partner (186).

Relationship Reciprocity

Of note, the notion of reciprocity (and specifically, the lack thereof) has been researched in connection with suicide ideation and behavior. It is discussed here due to its importance for the understanding of suicide within intimate partner relationships.

Commonly thought of as a positive social construct, reciprocity within relationships typically manifests as cooperation between individuals and groups – a form of mutual exchange of benefits (49). Reciprocity is also examined in the context of more societal realms, such as social justice and social capital (49). Within individual relationships, reciprocity is what one might expect based on the effort and benefits each partner puts forth within the relationship (49).

Perceived problems in reciprocity may cause distress in one or both partners, often resulting in the desire to restore relationship equity (49). Behaviors or cognitions related to the desire to restore equity may be influenced by the individual's own perceived commitment or perception of his or her partner's commitment to the relationship (49). Perceptions of poor reciprocity is thus an aspect of intimate partner relationships that may be seen in motivation for suicide, particularly when relationships are characterized by conflict or chronic dissatisfaction. Service members (current and Veteran) typically lead different lifestyles than many civilians, while facing frequent moves, geographic separations, and stressful life challenges such as deployments and therefore, may be at a greater risk to experience reciprocity-related conflicts in their relationship which may potentially contribute to suicide risk (068).

Relationship Conflict

Conflict in intimate partner relationships is a particularly important variable, as research has shown that interpersonal conflict significantly impairs the ability for individuals to meet their basic needs of close intimate relationships with others (019b). As intimate partner relationships are often an adult's closest, most important, and most available relationship, frequent or hostile conflict poses a significant problem for the health and happiness of both partners (196). In fact, increased frequency of minor

quarrels can have a negative impact on both health and happiness, indicating that the conflict does not necessarily have to be an isolated or highly emotional event (33).

Relationship conflict has been linked with depression (18, 197, 196), eating disorders (194), intimate partner violence (9), and alcohol abuse in males (43). In one study, the associations between relationship discord and functional impairments remained significant after controlling for psychiatric disorders (196). Physically, high levels of relationship conflict have been associated with poorer overall health (25) as well as specific and identifiable diseases such as cardiac disease, cancers, and chronic pain (158). Before even receiving a diagnosis, relationship conflict can increase risk for developing such physical ailments. Relationship conflict, or more specifically, negative or hostile styles of interaction during a conflict, are known to have an effect on immunological (109), endocrine (91; 195), and cardiovascular (53) functions.

Moreover, discord within an intimate partner relationship has shown to significantly relate to numerous categories of functional impairment (196). These categories include: social role performance decline in relationships with relatives and friends, impairment in professional roles, increased overall distress, and increased risk for suicide ideation (196). More specifically, in terms of suicide ideation, younger adults for whom intimate partner relationship conflict is a factor in their suicide ideation or attempt cite specific catastrophic events in the relationship as a precipitant versus older individuals who cite the build-up of long-term intimate partner relationships dynamics and conflicts as their motivation for suicide (170).

Relationship conflict has also been linked with decreased relationship satisfaction if persistent over time (for reviews, see 33, 55). However, not all conflict is detrimental.

When characterized by positive behaviors such as the use of humor, constructive criticism, affection, and problem-solving, conflicts within relationships can increase bonding and commitment (28). Effective problem solving can be taught during therapy and even prior to marriage (162). Research has shown that couples who engage in angry exchanges, while in the short term associated with a decrease in happiness, show increased happiness over the course of their relationship (40). Further, more blunt, direct, and even negative problem-solving tendencies can be related to the desired behavior change in the partner, particularly for those with more severe problems (119).

Gordon and Chen (63) examined the possibility that feeling misunderstood by one's partner can increase the negative effects of conflict. Perceptions of understanding by an intimate partner have not only been shown to reduce the negative effects of an intimate partner conflict (63) but to reduce the course of a conflict to a more constructive interaction (119). These investigators, through a series of 6 studies, found that the well-known association between intimate partner relationship conflict and relationship satisfaction is moderated by perceived understanding, such that the association between conflict and satisfaction was stronger for those who felt misunderstood by their partners (63). Individuals who felt more understood by their partners were more likely to recall recent conflicts as resolved compared to those who experienced similar conflicts but felt misunderstood by their partners (63). The effect of conflict on the relationships can therefore be considered in terms of how the individual interprets and remembers the conflict. These studies highlight the importance of perceived understanding in a relationship, a construct that can be affected by relationship dynamics.

Ogolsky and Gray (132) found that the experience of negative emotions moderated the relationship between intimate partner conflict and relationship maintenance behaviors, such that more conflict in a relationship was associated with more negative emotion which in turn was associated with less relationship maintenance behaviors. Further, when couples exhibited constructive criticism, the relationship between negative emotions and the perception of the partner's maintenance behaviors was weaker (132). While there has been interest in the study of intimate partner relationship conflict as it relates to issues like divorce, mental health concerns, employment, and overall life satisfaction, there is a paucity of research examining the effects of differing categories of intimate partner relationship conflict that may have varying levels of effects on suicide ideation and behavior (179). One recent study, conducted by Till, Tran, and Niederkrotenthaler (179) examined the associations among relationship satisfaction, suicide ideation, hopelessness, and depression as well as the extent to which these suicide risk factors are connected with specific categories of intimate partner relationship conflict in 382 participants (179).

First, Till and colleagues found that couples in their sample divided into three categories of conflict characteristics: (1) those with no conflicts, (2) those with conflicts but who had solutions to their conflicts, and (3) those who had conflicts and no solutions (179). The most commonly endorsed conflict categories defining the delineation of these groups were devotion, communication, and lack of support or acceptance (179). Further, the three groups were found to be significantly different in endorsement of suicide ideation, hopelessness, and symptoms of depression such that partners without solutions

to their conflicts were more likely to endorse these symptoms (179). The same group also had a high correlation with endorsement of being in an unhappy relationship (179).

Overall, Till and colleagues found that the category of relationship conflict was not as important to the determination of relationship satisfaction as was the couple's considerations of conflicts as resolvable or not (179). Though this was the overall finding, the main categories of conflict that emerged as different between those who had solutions and those who did not were communication- and commitment-based conflicts (179). This suggests that these types of conflicts may indirectly contribute to suicide ideation through weakening relationship satisfaction (179). However, due to the unique nature of each partner within an intimate partner relationship, the types and patterns of conflicts are likely to vary significantly across couples. The following are common stressors that may contribute to intimate partner relationship conflict.

Common Life Stressors as Precipitants to Relationship Conflict

Finances and Socioeconomic Status

Finances within intimate partner relationships can be a stressor for many reasons. First, Western culture has changed in recent decades such that economic equality between partners is a more socially accepted and expected norm (184). Work from the 1980s outlined the negative effects of financial inequalities in intimate partner relationships, showing that where inequalities in financial decision making existed, inequalities in living standards and access to personal spending money were also present (137). Though culture change in the new century has seen an increase in non-traditional intimate partner relationships, males and females remain in largely unequal positions of influence over financial management (175). Financial habits are often shaped by cultural

learning, which can be very different in intimate partner relationships and may not be something the couple explicitly discusses before becoming involved (184).

Another way in which finances can be a stressor are the decisions regarding significant purchases such as home-related necessities (184). Conflict arises in these interactions when either partner feels they do not have an adequate amount of influence over the final decision (221). Research has shown that there can be different perspectives on the same money management circumstances - meaning that one individual believes he or she has the final decision whereas the other might believe the couple will be making joint decisions, which can produce misunderstanding (184). When both partners perceive the financial decision-making to be joint, overall satisfaction with life appears reliably higher (184).

Research into the financial burden on military couples has shown that some stressors inherent to military life (i.e., frequent moves, need for childcare) can cause both subjective and objective financial stress (152). Partners in a military couple who are more concerned about their financial management or status were shown to engage in less warm and more hostile interactions with their partner, which were negatively correlated with relationship satisfaction (152).

Other commonly cited correlates with relationship stress are socioeconomic status (SES) and education, which are intertwined (4). Education can promote effective communication and better use of resources, which can aid couples who experience stress (4). In couples with low education and SES, finances and other daily obligations may provide more stress, less intimate time, and less resource access, which can affect partners' mood and expression of emotional support (42). In high SES couples, those

who are already divorced endorse communication problems, incompatible values and interests, and self-centeredness in their ex-partner (95). Low SES divorced individuals are more likely to report neglect of family, physical and emotional abuse, and problematic substance use, highlighting that low SES affects relationship quality in more concrete or visible ways and becomes more emotional or interpersonally focused as it increases (4). In low SES couples and in more conservative cultures such as the military, traditional gender roles are more often observed, which may result in more poignant gender role conflict.

Gender Role Conflict

The idea of gender role conflict in intimate partner relationships is thought to be embedded in early attachment experiences, discussed in greater detail earlier in the chapter. Specifically, the stereotypical male tendency to avoid intimate connections is thought to be developed as the male child is socially conditioned, particularly by a mother figure (98). Gender role conflict is defined by O'Neil and colleagues (133) as the negative consequences an individual experiences as a result of the male and female gender role expectations placed on them by members of society. In males, gender role conflict can manifest as rigid enactment of classical masculine ideologies in everyday interactions (134). This set of characteristics is typically accompanied by difficulty regulating negative emotions and maladaptive affect regulation strategies (98), which can perpetuate the idea that expressing emotion is detrimental. Gender role conflict can also play a role for females who remain in unhappy or unsatisfying intimate partner relationships in order to fulfill their perceived role as a mother or wife (129). Potential discrepancy between gender role expectations and actual desires can contribute to

relationship discord (129). A parallel of these gender-specific expectations is often manifested as a problem in the couple's experience of sexuality.

Sexuality

Relationship satisfaction is higher in couples whose sexual desire matches their sexual activity (155). Gender differences exist in this domain, where males across sexual orientations and relationship statuses desire a larger number of sexual partners than females do (16). This trend, along with differences in preferred type, duration, and experimentation of sexual activity suggests that the subsequent relationship between sexuality and relationship satisfaction may be stronger for males than for females (155). Gender differences, along with individual preferences, experiences, and confidence can lead to misunderstanding or conflict for intimate couples. Sexuality remains a somewhat taboo topic in Western culture, and as such, couples may not have the tools necessary to properly discuss their needs, a problem that can compound over time and result in negative emotions such as resentment, mistrust, or infidelity.

Infidelity

Infidelity, or engaging in an emotional or sexual relationship with someone other than one's intimate partner, is a difficult subject for couples. In fact, there is a body of literature that indicates infidelity is highly associated with decreased relationship satisfaction (69). Infidelity is a commonly treated issue in couples' therapy, as it is usually conceptualized as a symptom designating that there has been a breakdown elsewhere within the relationship (111). Along this line of thought, studies (139) have shown that individuals who engage in infidelity are typically lonely, distressed, and view their relationship as unsatisfactory (2).

Infidelity of one kind or another is fairly common among the U.S. civilian population, with about 15% of couples engaging in marital therapy to address the issue (10). The rate of military couples seeking treatment for infidelity is significantly higher, reaching up to 60%, perhaps due to the time spent apart on deployments, frequent moves, or lack of social support sometimes experienced by military couples (10). In one study of U.S. Airmen, the rate of infidelity over a one year-long deployment was 22.6%, extremely high compared to the local community sample of infidelity in the same year (up to 4%; 12). In the sample of Airmen, infidelity over the deployment preceded 75% of divorces within the 9 months after returning home (12).

In relationships that are not safe, infidelity can be a trigger for increased severity of conflict (see discussion of jealousy earlier in the chapter). In combination with substance use and a history of underlying relationship stress, the mere perception of infidelity can act as a trigger for intimate partner violence (129). The same perception of infidelity can also serve as a chronic stressor in intimate partner relationships, characterizing hostile dyadic interactions and perpetuating mistrust (129). In terms of suicide risk, no research has yet linked infidelity with the desire for suicide directly, though it is associated with symptoms that may put one at higher risk for suicide, such as depression (139) or intimate partner violence (129). Though infidelity is not directly related to suicide, it is a common precursor for relationship dissolution in the form of a divorce or separation (12), which in itself is a risk factor for suicide (77, 168).

Separation and Divorce

Loss of an intimate partner relationship is a part of life, but in the context of other life stressors or lack of support, it can be overwhelming. For married couples, divorce is a

process that solidifies this loss. Much of the literature on divorce is done with quantitative methods assessing external conflict, resources used, personality characteristics, and conflict style when assessing for why divorce occurs. Amato and Previti (4) conducted a qualitative study to explore the reasons cited by divorced individuals for their relationship dissolution, in order to understand their subjective logic for divorce.

The results of the study showed that males and females typically differed in reasons for divorce, with females citing more complex circumstances that often included a number of emotional and relationship variables, such as a lack of love, incompatibility, unhappiness, and a combination of more negative behaviors such as physical or emotional abuse, problematic substance use, and neglect of partner and family (4). Alternatively, males were more likely to cite external factors as their reason for divorce, such as issues with in-laws or problems at work (4). Males were also more likely to state that they did not know the reason for divorce (4). Quantitative results from the study conducted by Amato and Previti (4) cited infidelity as the main overall reason for divorce, followed by incompatibility and substance use. The results of the study were interestingly unlike most quantitative literature in that conflict style and personality traits were not as common as expected (4).

A later study conducted by Scott and colleagues (159) found that lack of commitment was the most commonly reported reason for divorce in a sample of divorced individuals who had completed a premarital counseling and education course. Interestingly, lack of commitment as the reason for divorce was agreed upon by both partners at a rate of 70.6% (159). This finding was followed directly by report of

infidelity, with a 31.3% rate of agreement between partners (159). Furthermore, the study found that 88.9% of couples had at least one partner identify a “final straw,” or event they considered to be the last negative event they tolerated before divorcing, though none of the couples agreed on what the final straw was (159). Qualitative analysis showed that the final straws were commonly occurring after a conglomeration of other infractions that may have had more significance for one partner than the other, which may explain the apparent personalized nature of the final straws (159). For some, the process of defining and acting on a “final straw” is followed by a period of increased negative emotions never experienced by the individual before. This period can predispose the individual to mental health disorders and even suicide (159).

Divorce or relationship separation is a robust risk factor for suicide (77; 168). In fact, individuals who have experienced a divorce or relationship separation are 3 times more likely to experience suicide ideation (190). Ide and colleagues (77) conducted a systematic review of 52 articles on the effects of both relationship separation, which they defined as an acute event, and divorce, which they defined as a long-term event, on suicidality. They were particularly interested in the contextual factors surrounding this association, such as systematic, social, and psychological traits of the couples and their circumstances that may change in the period directly following their relationship dissolution (77). They found that literature regarding countries other than the United States typically showed that the association between divorce and suicide was explained by other social variables that were potentially affected by a divorce, whereas the US literature focused more on the divorce itself as the catalyst (77). Further, in a qualitative content analysis of DoDSER and NVDRS data, researchers found that within the

category of “intimate partner problems,” divorce or break-up was found in 35.3% of cases, the highest of all subcodes for that category, suggesting that the breakup itself may be particularly impactful among service members (212).

Only two studies of suicide risk associated with the dissolution of a relationship distinguished between couples who were separated versus divorced, a difference argued by Ide and colleagues to be important in the calculation of risk due to social, financial, and temporal factors (77). Both studies (31; 180) determined that separation, as opposed to divorce or any other marital status, was more closely associated with increased suicide risk (77). One of these studies, conducted by Torre and colleagues (77) showed that separation was associated with a five-fold increase in suicide risk in males and a seven-fold increase for females compared to divorced individuals.

Batterham and colleagues (15) used longitudinal population-based data to determine if suicide was more likely in the period directly following divorce or relationship separation. They found that suicidal ideation was highest for individuals who experienced divorce or relationship separation within a year and a half of the study, noting that within this population, individuals were 6 times more likely to have planned for a suicide attempt and 20 times more likely to have attempted suicide (15). Rates of suicide ideation and behavior decreased steadily after a year and a half of being separated, as predicted by Batterham and colleagues (15), though the study found that risk for suicide was still elevated compared to those who did not experience a relationship separation after 5 years (15).

Results of this study also found that though the year and a half after a divorce or separation was the highest period of risk for suicide, the 4 years leading up to divorce

were noted as a time of increased risk as well (15). Batterham and colleagues conceptualized this time as the relationship dissolution, showing that the act of divorce itself may not be the only important factor in the trajectory from a relatively healthy individual to a suicide attempt (15). Further, Ide and colleagues identified separation as a process, the effect of which has likely been underestimated in the suicide literature due to the overwhelming focus on marital status (77).

In a continuation of these efforts, Kőlves, Ide, and De Leo looked at the 6 months after a couple separated to observe potential patterns in the process of relationship dissolution for the development of suicide thoughts and behaviors (96). The study compared male and female individuals who were single with those who were recently separated but not yet divorced (96). They found that both males and females who indicated an increase in suicidality in the 6 months after separation also endorsed a “change for the worse” in regards to life circumstances (96). Some examples of these events, which could be defined as negative life events, were loss of employment, change in living situation, and physical illness (96). They also found that those who showed an increase in suicidality were also more likely to report psychiatric symptoms, such as problematic substance use, anxiety, and depression (96). Perhaps a predisposing factor to these symptoms and the relationship dissolution altogether is the couple’s pattern of conflict, which can greatly affect the course of a negative situation.

Patterns of Conflict

In working with couples, counselors typically identify the patterns of conflict as one of the first points of intervention. Johnson (83), who has developed Emotionally Focused Therapy (EFT) for couples, believes that conflict can arise and be maintained

because of an unestablished or broken attachment bond. From this disruption, the individuals in a given relationship engage in continuing patterns of negative interactions that reinforce their insecure attachment to their partner (83).

Because of these roots in attachment and personal development, conflict between couples typically follows a pattern that is identifiable throughout the time the couple is together (55). A concerning conflict pattern is when individuals in a relationship respond to each other with more negative statements and fewer positive statements (55). Further, couples with problematic negative conflict patterns tend to reciprocate negative behaviors during conflict more so than their healthy counterparts (55). These reciprocal behaviors can give way to negative escalation of conflict and can eventually lead to acts of physical aggression (64). Within such patterns, it can be difficult for the partners to mitigate or change the structure of conflict, particularly if it has occurred over an entire relationship (188). An individual might attempt to explain his or her frustration or sadness with the conflict pattern, but often the corresponding partner only responds to the negative affect, which perpetuates the conflict pattern (55). Other patterns may be characterized by withdrawal and subsequent increased demands or hostility, where one partner removes himself or herself from the conflict pattern but the other follows with increased negative affect to continue the interaction (55).

Conflict patterns are also learned through the amount and type of partner responsiveness. The perception that one's partner understands his or her point of view and feelings during a conflict interaction typically leads to more intimate and positive relationships (99). To be a responsive partner, one must respond with positive affective and cognitive support, such as a display of validation or empathy (63). Individuals can

learn to expect a certain level of responsiveness from their partner, such that within couples where one individual expects understanding from his or her partner shows more positive conflict-specific behaviors (154).

Physiologically, studies have shown that when one engages in conflict and becomes aroused, he or she demonstrates a decreased ability to process new information, control emotional responses, perform active listening, effectively problem-solve, and use humor to defuse the situation (65). Individuals may learn to expect negative behaviors and intentions from a partner at the onset of a conflict, resulting in increased negative affect and arousal prior to discussion (132). Over time, these can become conditioned responses, contributing to the stability of conflict patterns (66).

Research into stability of relationship conflict over time has shown that these patterns are typically maintained over long periods of time (64). McGonagle and colleagues (162) found that responses from a population of couples regarding frequency of overt conflicts showed 1 to 2 conflicts per month, which remained stable after three years.

Because these dysfunctional patterns can develop very early in a relationship, they may not be seen as a considerable threat to the quality and satisfaction of the relationship until a much larger, more serious, and more detrimental problem or conflict occurs (66). As previously mentioned, the individual and dyadic characteristics of partners within a relationship will largely determine what constitutes a “serious problem.” Presumably, this variance would make the study of specific categories of intimate partner relationship problems associated with suicide very difficult; for example, one couple may consider the “final straw” to be infidelity versus another couple who considers ending their

relationship in response to differences in parenting. Thus, to capture the overall effects of relationship discord on suicide ideation and behavior, an area of interest that spans the wide range of potential intimate partner relationship conflicts would be the amount of distress that ensues because of any considerable problem.

Conflict-Induced Distress

Regardless of the cause of relationship conflict, distress in the individual and/or the couple is a natural result. Returning to the definition of conflict from interpersonal theory, conflict will occur when differences between partners disrupt behavior (003d). As a result of such conflict, individuals in the relationship can experience an increase in negative emotions or negative arousal, such as anger, anxiety, or sadness (32). However, not all conflicts result in the same level of distress. Relationship dynamics are as unique as the individuals who create them, and thus, different couples will have different conflicts that result in varying levels of distress. Some couples seemingly argue over everything, yet maintain high relationship satisfaction (183). Others seem to hardly ever argue, but report low relationship satisfaction because of the one detrimental conflict they do have (183). In general, distress is detrimental to an individual's mental health (183), but not all distress will contribute to relationship dissolution, mental health problems, and/or suicide risk.

When considering divorce, greater overall problem severity is a predictor for relationship dissolution (157). It is thus reasonable to assume that problems considered to be of greater severity might result in higher amounts of distress. Distress over conflicts can also occur when an individual anticipates a hostile interaction, which may be primed by their engagement in a negative conflict pattern (55). Further, individuals in distressed relationships as opposed to non-distressed relationships are more likely to perceive their

partner's neutral or positive behaviors as negative, a phenomenon termed "negative sentiment override" (187). In a study where trained observers were present in the homes of both distressed and non-distressed couples, they found that individuals identified as 'distressed couples' reported less pleasurable behavior from their spouses than the non-distressed couples, despite the objective observer's count of similar behaviors across groups (149).

Therefore, partner perception is key in many facets of conflict distress. As previously mentioned, perceived understanding by the opposing partner can influence the individual's view of the conflict and thus, the aftermath (63). Any action from a partner is necessarily influenced by the individual's specific set of beliefs, values, and biases; as well as their previous experiences in the relationship and their current relationship satisfaction (47). Further, research has shown that during an intimate partner relationship conflict, individuals tend to project their current feelings onto their partner's observed behavior, thus fostering an attention bias (56). This helps to explain the phenomenon of partners in distressed couples observing more negative behaviors despite objectively neutral ratings, and complicates the act of conflict in intimate partner relationships (149). On the positive side of perception, one study showed that the expectation that a partner will be understanding during a conflict increased positive behaviors (154). Individuals in more satisfying relationships tended to perceive more attempts at empathy from their partner during a conflict (41)

A newer body of research looks at distress tolerance in individuals engaged in romantic relationships (214). Doorley and colleagues (214) conducted a daily diary study of heterosexual couples which found that distress tolerance, or the ability to weather

uncomfortable psychological states, was significantly correlated with satisfied psychological needs within a relationship, which they operationalized as relationship competency, relatedness, and autonomy (214). However, with the exception of the male relationship variable of relatedness, the variables were no longer significantly correlated when controlling for daily distress (214). These findings suggest that above and beyond the individual characteristic of distress tolerance, distress experienced daily can have a potentially negative effect on relationship satisfaction variables in a unique way. Conflicts and problems experienced within the relationship may therefore be compounded further by this effect of the distress on the individual's view of the entire relationship.

Perhaps as a means of reducing such distress, individuals who experience more negative emotions within their relationship engage in less relationship maintenance behaviors (003). When less relationship maintenance behaviors are perceived from the partner, the partner is more dissatisfied (132). Thus, one might conclude that the level of conflict in a relationship can lead to increased negative sentiment override, causing a negative feedback loop for relationship maintenance behaviors and relationship satisfaction within a given couple. It is in this way that the conflict itself is not necessarily the reason for divorce, but perhaps the behaviors and connotations within the relationship that follow the development of a negative conflict pattern and become distressing to the individual. Further, this assertion would suggest that intimate partner relationship conflict is not, in itself, a reason for increased suicide ideation or behavior, but rather the distress caused by conflict that is detrimental to the individual.

Specific to the military, couples face largely predictable stressors as outlined in the sections above. Individual and dyadic reactivity are factors that affect one's response to such stress, which are experienced in the context of a greater military culture that has the overarching expectation that the couple should be able to effectively cope (213). This expectation alone may increase either partner's conflict-induced distress by adding a layer of perceived failure or hopelessness for the situation they find themselves in (213). Additionally, studies focusing on specific conflicts that preceded suicide (rather than the subsequent distress) consistently find that not just one problem precedes suicide, but rather a flurry of issues (212, 88). Though the DoDSER does not list the intersection of the variables it provides, it does illuminate the types of problems that precede suicide deaths and attempts (143). These problems and further, their intersectionality, are mirrored in Skopp and colleagues' (212) qualitative analysis of that data, which showed that individuals rarely only endorsed simple intimate partner problems. Of decedents that had intimate partner problems, 41.2% indicated they faced more than one type of intimate partner problem, 50.6% also experienced a mental health problem, 49.4% also experienced military job-related problems, and 29.4% also found financial problems (212).

Therefore, though it is tempting to disregard the presence of conflict in an intimate partner relationship as one of many factors that contribute to suicide risk, the concept of conflict-induced distress may explain the potential lethality of the intersection of these risk factors, as well as the puzzling fact that some individuals face these problems and do not attempt suicide.

Summary of Significance of Dyadic Characteristics for Proposed Research

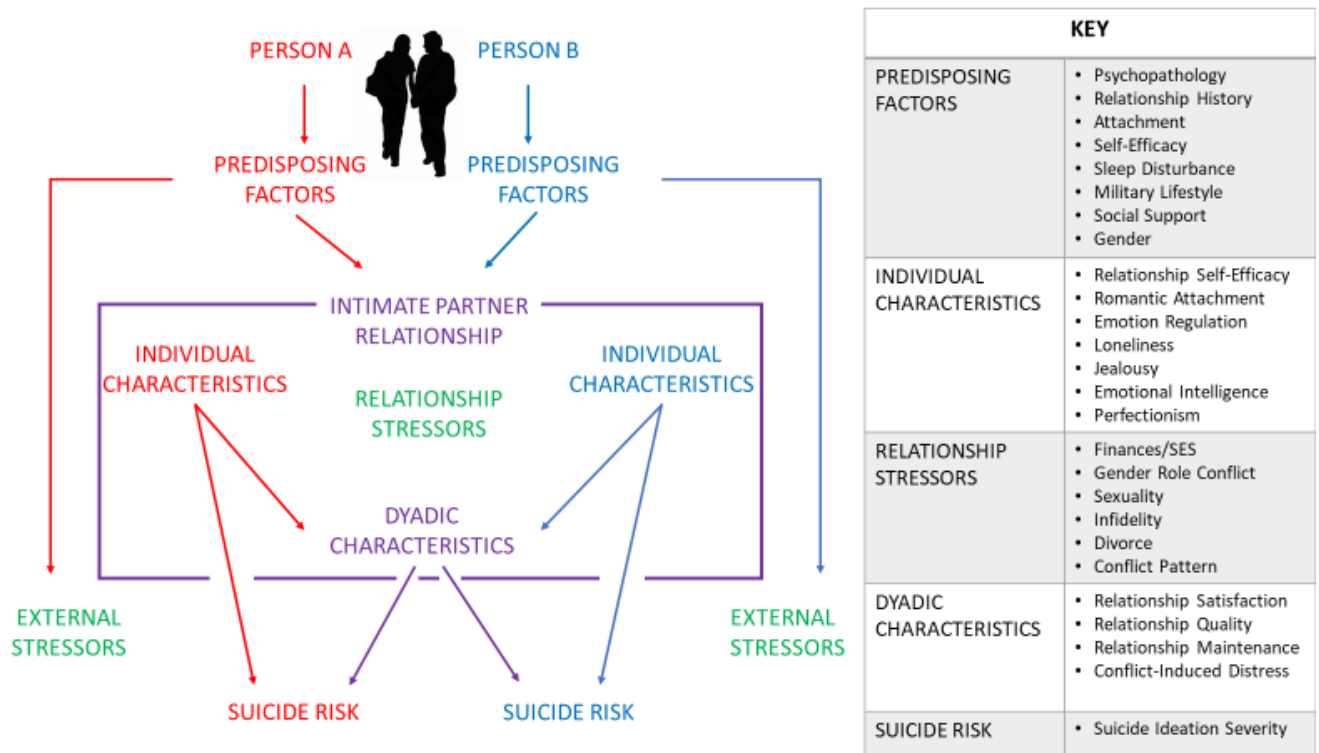
Individuals engaged in intimate partner relationships create dyadic characteristics that equal more than the sum of their own personality traits (109). These characteristics are manifested through the couple's experience of relationship satisfaction, quality, maintenance behaviors, the effect of varying stressors, patterns of conflict, and conflict-induced distress. Relationship satisfaction overall classifies an individual's level of acceptance of the relationship; a subjective appraisal of whether or not the individual feels the relationship is positive or not, despite the effects of any other dyadic characteristics. Conflict-induced distress is likewise an overarching measure of the acceptability of other dyadic characteristics, including any conflict in terms of the individual's ability to cope with stress in the relationship as a whole. Conflict-induced distress describes not only the individual's appraisal of conflict within the relationship, but the relationship conflict has on other dyadic characteristics, such that increased conflict-induced distress might decrease relationship maintenance behaviors, increase the experience of other life stressors, or negatively affect relationship quality.

Thus, in studying the trajectory between intimate partner relationship discord and suicide, the current study focused only on the variables of dyadic characteristics that represent subjective overall appraisal of the intimate partner relationship, as changes in any of these characteristics were expected to be reflected in reports of relationship quality and conflict-induced distress.

PROPOSED STUDY AND SIGNIFICANCE

The current study sought to understand the trajectory between relationship difficulties and the motivation for suicide. Current literature highlights that divorce and relationship

Figure 1. Conceptual Model as a Framework for Understanding Intimate Partner Relationships and Suicide Risk. The model describes two individuals with predisposing factors present regardless of relationship status. The individuals engage in a relationship, leading to relationship-specific individual characteristics and unique dyadic characteristics, along with relationship



stressors that influence these characteristics. These characteristics, along with the interaction of the individual's predisposing factors and external stressors, influence their suicide risk.

dissolution is a robust predictor for suicide, but does not indicate what about this phenomena is particularly lethal.

Further, the literature notes other common aspects of relationships linked with numerous outcomes related to suicide, such as mental health disorders and divorce.

However, to date, the field has not produced a comprehensive model of how an intimate partner relationship could affect an individual's suicide risk. The current study was thus guided by a conceptual model created from the information gathered in the literature review discussed earlier in the chapter (see Figure 1). The conceptual model depicts a framework that includes an individual's predisposing factors, individual characteristics, and the corresponding dyadic characteristics. It suggests that there are risk factors present within the relationship that are separate from external stressors and predisposing factors, which are widely studied in suicide literature.

The conceptual model, shown in Figure 1, was created with known variable constructs in an effort to operationalize an individual and dyadic conceptualization of the phenomenon of suicide in the context of intimate partner relationships. Moreover, constructs covered in the model can be measured by tools with known psychometric properties, which allows for further exploration and refinement of the model. The current study incorporated the following variables: romantic attachment style, relationship self-efficacy, relationship satisfaction, and relationship self-efficacy. These variables were chosen for inclusion in this study as individual and dyadic characteristics hypothesized to illuminate the nuance inherent in relationship dissolution as a risk factor for suicide. Their rationale for inclusion is explored in depth in Chapter 2.

In addition to this model, the current study included a complimentary qualitative exploration of the same phenomenon. Semi-structured interviews collected from the target population were thematically analyzed using grounded theory technique to allow for the target population to create a separate set of variables that are more accurate descriptors of the experience by this population, but arguably less reliably measurable.

This portion of the study was designed to account for the nuance previously highlighted: what *about* relationships influences the desire for suicide? Examined juxtaposed to the known-variable model presented above, the current study aims to advance the field of suicidology by providing both a variable concept map and a fresh look at the phenomenon from the bottom up.

As a result, this dissertation study is a notable addition to the body of literature on suicide within the military. Over the past 5 years, frustration has risen within the field of suicidology, particularly within the military. The annual DoDSER shows that after the initial steady rise in suicide rates following the year 2000, (DoDSER officially began recording and reporting in 2008) reported factors surrounding suicide have remained virtually unchanged since 2012 (143, 211). Despite money, time, and other resources fervently allocated to the research and prevention of suicide, the numbers remain unchanged (206), leading to the call for an answer as to how to do better in reducing suicides. One potential step towards the solution is to attempt to more accurately understand the intricacies of the relationships between known risk factors for suicide and suicide risk itself.

Skopp and colleagues (212) highlight the increase in quantitative studies of military suicide factors correlated with the rise and plateau of military and Veteran suicide rates. They note that these studies, while largely beneficial in illuminating group characteristics that might increase suicide risk (see sections above), fall subject to repetitive findings and methodological constraints which are characteristic of single-method studies. Demonstrating this claim, Kazan, Callear, and Batterham conducted a large-scale systematic review of the literature outlining the associations between intimate

partner relationships and suicidality (88). They found that despite review of 20 articles that met strict review standards, they could still not reliably distinguish aspects of a relationship likely to increase suicide risk, other than simply being engaged in such a relationship (88).

Therefore, in order to better understand the nuances inherent in correlations between risk factors and suicide, the current study employed a mixed-method approach that examined intimate partner relationships not as a risk factor, but as a starting point for the exploration of nuance that may advance the field's understanding and application of risk assessment. The following chapter describes the hypothesized order of variables examined in relation to the proposed trajectory between relationship discord and suicide.

CHAPTER 2: Specific Aims and Hypotheses

Targeting a high risk suicidal inpatient psychiatric sample at a military treatment setting, the broad objectives of this dissertation study were threefold:

(1) to understand *how* intimate partner relationship dynamics and conflicts contribute to the development, maintenance, and/or exacerbation of suicidal thoughts and/or behaviors (Aim 1);

(2) to understand romantic attachment style, relationship self-efficacy, relationship satisfaction, and conflict-induced distress as well as any potential gender differences (Aims 2 and 3); and

(3) to understand the associations among romantic attachment, relationship self-efficacy, relationship satisfaction, conflict-induced distress, and worst lifetime suicide ideation severity (Aim 4).

The study also sought to explore the potential moderating effects of an individual's romantic attachment style and relationship self-efficacy on the association between conflict-induced distress and suicide ideation severity (Aim 5). The specific aims of the dissertation study were as follows:

SPECIFIC AIM 1

To explore the narratives of *how* intimate partner relationship dynamics and conflicts contribute to the development, maintenance, and/or exacerbation of suicidal thoughts and/or behaviors among a highly vulnerable patient population.

Research Question 1a

What are the commonly reported types of intimate partner relationship characteristics and conflicts that precede psychiatric inpatient hospitalization due to a suicide-related crisis?

Research Question 1b

What are the specific intimate partner relationship characteristics and conflicts that subjectively contribute to the development, maintenance, and/or exacerbation of suicidal thoughts and/or behaviors?

Rationale for Specific Aim 1

Despite our expectation that individual and dyadic characteristics might contribute to the dissolution of relationships and perhaps increased suicide risk, minimal research on this topic has been conducted (77). More specifically, not much is known about the specific processes that characterize the trajectory of a relationship conflict, distress, or dissolution to eventual development, maintenance, and/or exacerbation of

suicide related thoughts and/or behaviors (201). The vast majority of existing research has primarily focused on hypothesis testing of correlations among self-reported or observed patterns of relationship satisfaction, depression, and hopelessness in relation to suicide risk (88). The purpose of this aim was to go back to the basics – i.e., to directly learn from the individuals’ perspectives about their intimate partner relationships and conflicts that preceded their psychiatric inpatient hospitalization due to a suicide-related crisis – i.e., how these intimate partner relationship characteristics were developed, maintained, and/or even exacerbated over time and how they were conceptualized as contributing to suicidal thoughts and behaviors. The rationale for any type of qualitative research is to generate ideas and hypotheses to guide future research.

SPECIFIC AIM 2

To characterize romantic attachment style, relationship self-efficacy, relationship satisfaction, and conflict-induced distress within a sample of psychiatric inpatients admitted to a military treatment facility following a suicide-related crisis.

Rationale for Specific Aim 2

Romantic attachment, relationship self-efficacy, relationship satisfaction, and conflict-induced distress are factors that characterize all intimate partner relationships. In certain circumstances, one or a combination of these factors may contribute to adverse outcomes including suicide risk. An understanding of how these factors present themselves within a highly vulnerable suicidal psychiatric inpatient sample can advance our scientific knowledge. What the literature has shown, briefly stated, is that attachment style and self-efficacy beliefs are two factors known to influence the dynamics of an individual’s intimate partner relationship (101; 146). Poor relationship satisfaction has

recently been associated with increased depression, hopelessness, and suicide ideation (179). The association between relationship satisfaction and suicide attempts appears to be partially mediated by a separation or divorce (107). Since separation and divorce are not typically unprecedented, one might safely assume that other factor(s) might better explain the association. Conflict-induced distress is one such factor that may have a role in the association between relationship satisfaction and suicidal ideation and/or behaviors. For example, Till and colleagues (179) found that partners with more conflicts and less solutions to those conflicts were more likely to experience depression, hopelessness, and suicidal ideation.

SPECIFIC AIM 3

Specific Aim 3

To examine gender differences in romantic attachment, relationship self-efficacy, relationship satisfaction, and conflict-induced distress within a sample of psychiatric inpatients admitted to a military treatment facility following a suicide-related crisis.

Hypothesis 3a

Men, compared with women, would demonstrate greater avoidant romantic attachment, lower relationship self-efficacy, higher relationship satisfaction, and greater conflict-induced distress.

Rationale for Specific Aim 3

Gender differences are known to play a role in many aspects of intimate partner relationships (4, 185, 203) as well as general suicide risk (203, 023, 141). Therefore in the context of this dissertation, it was important to understand what individual and dyadic characteristics of intimate partner relationships are problematic for either gender, or if these risks are similar across genders. Overall risk for suicide after conflict in an intimate

partner relationship is known to be worse for men (201); perhaps due to socialization that men's partners present sufficient social support and men's demonstrated tendency to use avoidant coping methods in times of discomfort (183). Research suggests that as opposed to women, men are less likely to predict relationship dissolution and are more surprised when conflict occurs (4, 95). This phenomenon may occur in connection with a higher subjective rating of relationship satisfaction at the time of relationship dissolution. Therefore in the current study, men were hypothesized to have lower relationship self-efficacy and higher relationship satisfaction. Compiling these factors, men were also expected to experience greater conflict-induced distress, as they were potentially unaware that their relationship was suffering.

SPECIFIC AIM 4

To evaluate the associations among romantic attachment, relationship self-efficacy, relationship satisfaction, conflict-induced distress, and worst lifetime suicide ideation severity within a sample of psychiatric inpatients admitted to a military treatment facility following a suicide-related crisis.

Hypothesis 4a

Higher levels of anxious and avoidant romantic attachment and conflict-induced distress, and lower levels of relationship self-efficacy and relationship satisfaction would be associated with worst lifetime suicide ideation severity.

Rationale for Specific Aim 4

Anxious and avoidant attachment styles are known to be associated with increased suicide risk in general (e.g., 136; 138; 103) as well as an increase in psychiatric disorders such as major depressive and anxiety disorders (138; 103). As attachment style

is largely pervasive throughout the lifetime, adult intimate partner relationships are a prime example of individual's attachment beliefs applied. Dissolution of a relationship for any reason might therefore activate negative core beliefs associated with anxious or avoidant attachment styles. While not as widely studied in the context of suicide as attachment style, self-efficacy has been studied in the context of intimate relationships. The literature has identified positive self-efficacy as a protective factor for suicide (120) and a correlate with relationship satisfaction and commitment (101). Self-efficacy is thought to bolster relationship satisfaction through the individual's engagement in relationship maintenance behaviors (186). High relationship self-efficacy in an individual would thus prompt an individual to address and make necessary changes within a relationship to keep it healthy and satisfying (186). Therefore, individuals with lower relationship self-efficacy may be predisposed to feelings of hopelessness and a belief that they cannot change the tone within their relationship, which may increase suicide risk.

EXPLORATORY SPECIFIC AIM 5

To examine the moderating effects of anxious romantic attachment and relationship self-efficacy on the association between conflict-induced distress and worst-lifetime suicide ideation severity within a sample of psychiatric inpatients admitted to a military treatment facility following a suicide-related crisis.

Hypothesis 5a

Romantic attachment and conflict-induced distress will interact such that individuals who report higher attachment-related anxiety would have a stronger positive relationship between conflict-induced distress and worst lifetime suicide ideation severity.

Hypothesis 5b

Relationship self-efficacy and conflict-induced distress will interact such that individuals who report lower relationship self-efficacy would have a stronger positive relationship between conflict-induced distress and worst lifetime suicide ideation severity.

Rationale for Exploratory Specific Aim 5

As romantic attachment and relationship self-efficacy are thought to be individual characteristics that remain largely stable throughout one's adult life, in the current study, these characteristics were expected to be present in the individual prior to the development of poor relationship satisfaction or increased conflict-induced distress. Due to the limitations of cross-sectional data, temporal structure of the variables cannot be concluded. Thus, the individual characteristics of romantic attachment and relationship self-efficacy were conceptualized as potential moderators in the association between dyadic characteristics and suicide ideation severity. This aim was considered exploratory due to the time constraints associated with data collection for this dissertation.

CHAPTER 3: Methods

RESEARCH DESIGN

This was a retrospective, cross-sectional study that used a mixed methods approach to answer a series of questions about intimate partner relationships and suicide risk.

PROCEDURES

Participants

Eligible individuals were invited to participate in this study during their psychiatric inpatient stay at the Walter Reed National Military Medical Center (WRNMMC). The WRNMMC referring physician and/or designated treatment team member provided information for eligibility determination to the research team. Determinations about eligibility were made by research team members who attended the unit's morning report. The eligibility criteria for the study were as follows:

Inclusion criteria:

1. Military, Veteran, and/or Civilian Status: Active Duty military, retired, Veteran, Reserves, and DEERS eligible adult dependents were eligible to participate.
2. Psychiatric Admission Reason (Suicide-Related Event): Individuals who were admitted to the WRNMMC psychiatric unit due to a suicide related event (i.e., suicidal thoughts and/or suicidal behaviors) were eligible to participate.
3. Adult Age: Individuals who were 18 years of age or older were eligible to participate.
4. Relationship Status: Individuals who were currently in a romantic relationship or who had been in a romantic relationship within the past 5 years were eligible to participate.

Exclusion criteria:

1. Medical Incapacity to Participate and/or Serious Cognitive Impairment: Individuals who were unable to provide consent or participate in the study because of an acute, unstable, or severe medical and/or psychiatric disorder (e.g., severe traumatic brain injury, active psychosis) were excluded. The referring provider considered the patient's level of medical and psychiatric incapacity and

degree of cognitive impairment and did not refer patients who were medically, psychiatrically, and/or cognitively impaired to participate.

2. Unable to Communicate in English: Individuals who were unable to read or understand English were excluded from the study.
3. Unable to Provide Written Informed Consent: Individuals who did not understand the nature of the study and provide written informed consent on the IRB-approved form were excluded from the study.

Recruitment Strategy

A member of the research team (hereafter referred to as Researcher) attended morning report meetings at the WRNMMC inpatient psychiatric unit, at least 3 days a week, to identify potential study participants. Based on a consultation with members of the WRNMMC inpatient treatment team (i.e., social workers), decisions were made about the appropriateness of the identified patients for study participation. Potentially eligible patients, with the referral recommendation of the WRNMMC inpatient treatment team, were then approached by the Researcher that afternoon. Upon meeting, the Researcher briefly described the study to gauge interest. If the patient was interested to learn more about study participation, a private room was secured on the unit and the Researcher explained in detail the purpose and procedures of the study. For patients with continued interest in participation, Researcher reviewed the IRB-approved consent form, administered the post-consent check-in to ensure comprehension, and answered any questions posed. Those interested in participating were asked to sign the IRB-approved consent form and completed the encounter process (assessment and interview, see below) with the Researcher.

Assessment and Interview Strategy

The assessment encounter with the study participant took place at the time of establishing interest in the study, or when the participant was first available. Following informed consent, participants were first asked to complete a series of seven self-report measures with the Researcher present to answer any questions. Generally, participants completed the self-report measures within 15 minutes. Second, participants were asked to respond to two clinician-administered measures, which generally lasted 15 to 20 minutes. Participants were then offered a break and advised of the start of the recorded portion of the encounter, involving a semi-structured interview about their romantic relationships.

The semi-structured interview was the most variable portion of the encounter with respect to time, with participant completion times ranging from 20 to 60 minutes. The overall length of the assessment encounters therefore varied from approximately 30 minutes to approximately 90 minutes. Participants were given the opportunity to ask any final questions. At the end of the encounters, participants were thanked for their time and encouraged to return to normal activities on the ward. All data collected was checked for completion at the end of the encounter. If an item was found unanswered, participants were given the opportunity to provide a response (*see Missing Data section, page 82*). Generally, assessment encounters were completed in one session, however in very few instances scheduling conflicts resulted in encounters being separated into two parts, never more than 24 hours apart (<5% of cases).

Measures

1. Demographic Form, Military Service Form, and Romantic Relationship History

Form: The Demographic Form and the Military Service Forms were self-report

questionnaires that collected information such as age, race, gender, branch of service, military pay grade, time in service, military status, combat experience (yes/no), marital status, religious affiliation and religiosity, and highest level of education completed. The Romantic Relationship History Form broadly captured the lifetime experiences one has had in the context of romantic relationships.

These forms were created by the USUHS Suicide CPR Initiative team, in collaboration with WRNMMC investigators.

2. *The Scale for Suicide Ideation (SSI;17)*: In the current study, the SSI was used as a structured interview to assess for severity of suicide ideation within the participant's current or most recent intimate partner relationship. The SSI is a 19-item clinical tool used to measure suicide ideation and intent (17). Responses to each prompt were recorded on a 3-point ordinal scale from 0 to 2. The measure is scored by summing the total for each response. An example of this response recording for Item 2 "Wish to die" is: 0 – None, 1 – Weak, and 2 – Moderate to strong (17). The SSI has shown strong internal consistency (Cronbach's alpha = .89), good interrater reliability (.83, $p = .001$), and good predictive validity when compared to the earlier versions of the form, which only assessed for current suicide ideation severity (16, 17). The SSI has also demonstrated good convergent validity with other measures for suicide ideation (16). The SSI was purchased from Pearson for use in the current study.
3. *The Couples Satisfaction Index (CSI, 60)*: The CSI was used to measure relationship satisfaction. The CSI is a 32-item self-report measure designed to assess an individual's satisfaction in their current or most recent romantic

relationship (60). The first global item uses a 7-point likert scale, while the other 32 items use a 6-point likert scale with multiple response anchors. Total scores are calculated by summation of individual items and range from 0 to 161, where higher scores indicate higher relationship satisfaction. Scores that fall below 104.5 for the 32-item measure are suggestive of notable relationship dissatisfaction. An example of an item from this measure is: “I can’t imagine ending my relationship with my partner,” where 0 represents “Not at all true” and 5 represents “Completely true.” The CSI has shown good convergent validity with longer and older measures of relationship satisfaction such as the Marital Adjustment Test and the Dyadic Adjustment Scale (60). The CSI is one of the only relationship satisfaction measures that was developed using item response theory and has an alpha coefficient of .94. The CSI is available for free use online (60).

4. *The Experiences in Close Relationships Scale, Revised (ECR-R, 58)*: The ECR-R was used to measure anxious and avoidant romantic attachment. The ECR-R is a 36-item self-report measure with two subscales: the attachment-related anxiety scale ($\alpha = .94$) and attachment-related avoidance scale ($\alpha = .91$; 162). It was revised from the original ECR, which included the same number of items. Responses to each item are on a 7-point likert scale where 1 represents “strongly disagree” and 7 represents “strongly agree.” Each subscale has 18 items, some of which are reversed when scoring. Scores for each subscale are computed by averaging the participant’s responses to each item on the scale, with the lowest score being 1 and the highest being 7. Higher scores indicate a more pronounced experience of attachment-related anxiety or avoidance. An example item from the

attachment-related anxiety scale is: “I often worry that my partner doesn’t really love me.” An example from the attachment-related avoidance scale is: “I prefer not to show a partner how I feel deep down.” Test-retest correlation is .93 for the anxiety subscale and .95 for the avoidance subscale. Permission for use was obtained from author 08NOV2017. This measure is available free of charge.

5. *The Self Efficacy in Romantic Relationships Scale (SERR, 152)*: The SERR was used to measure relationship self-efficacy. The SERR is a measure of an individual’s perception of demands in a romantic relationship as well as their perceived capability to fulfill those demands (13). The SERR is a 12-item self-report measure. An example of an item from the SERR is “Failure in my romantic relationships only makes me want to try harder.” Item responses are on a 9-point likert scale where 1 represents “strongly disagree” and 9 represents “strongly agree.” Total scores are calculated by summation of each item. Higher scores indicate higher perceived romantic relationship self-efficacy. The SERR has a Guttman split-half reliability of .82 and a Cronbach’s alpha of .89. Permission for use was obtained from author 06NOV2017. This measure is available free of charge.
6. *The Relationship Problem Scale, Modified (RPS-M, 148)*: The RPS-M measures the presence, severity, and resulting distress related to problems within a romantic relationship. The RPS-M is a 38-item self-report measure of problems and distress within an individual’s current or most recent relationship. Items present common areas of conflict for couples and use a 4-option response scale, where participants select that the problem causes them to feel: (0) not distressed, (1) slightly

distressed, (2) moderately distressed, or (3) very distressed. The sum of these responses produces a total distress score, where higher scores indicate more conflict-induced distress within the relationship. The total distress score has good internal consistency (Cronbach's $\alpha = .86$). The RPS-M also produces a mean distress severity score, averaging the distress endorsed according to the total number of problems endorsed (148). While not studied in relation to suicide, the original RPS correlates with individual's self-report of relationship aggression, particularly in samples of military personnel exhibiting symptoms of PTSD (145b, 145c). Permission for use was obtained verbally from author (Dr. David Riggs, Department Chair, Medical & Clinical Psychology at USUHS) 20FEB2018. This measure is available free of charge.

Institutional Review Board Approval

The study protocol, once approved by the dissertation committee, was submitted for review to the WRNMMC IRB. The study was reviewed by members of the full board, with the researcher and site specific WRNMMC principal investigator, Major Alyssa Soumoff. MAJ Soumoff is an active duty military psychiatrist assigned to the WRNMMC inpatient psychiatric unit who facilitated research presence on the unit and was present to discuss the protocol and to answer the board's questions. The study protocol was approved on February 4, 2019 as a "greater than minimal risk" project. The IRB stamped consent form was consequently used for the study encounters. An IRB review/audit of the study was performed on [January 1, 2020] and the findings indicated only minor recommendations for future enhancements to the study's procedures for the protection of human subjects.

Data Security

Study data was safely transported from WRNMMC in Bethesda, Maryland via locked briefcases to the Suicide CPR Initiative office at Rockville, Maryland, entered into an electronic database, and stored securely on DoD encrypted computers. All study forms, hard-copy and electronic (de-identified), were stored in locked file cabinets separately from the signed consent forms. The collected digital recordings were transferred to and stored on an encrypted Passport and were backed up to a password protected CD, stored securely in locked cabinets. The audio-taped interviews were transcribed at the earliest available opportunity by the research team members who redacted any identifiable information.

Missing Data and Software Analysis

As data was collected during the encounter, it was evaluated by the Researcher for missing values. In most cases, missing values were brought to the attention of the participant, who was given the opportunity to provide a response. In some instances, missing values were the result of the participant choosing not to provide a response. For eight participants, item 20 of the Couples Satisfaction Index was omitted due to a formatting error¹. Participants were not contacted after completion of the encounter to answer the item, thus they remain as missing values. At the completion of data collection, the data was analyzed for outliers and none were found. Finally, the distributions within the data set were examined to determine the need for transformation, which was found to be unnecessary.

¹ The item omitted was "To what extent has your relationship met your original expectations." This item was omitted for 8 participants and is not thought to contraindicate the use of the CSI in analysis.

Sample and Power Estimation

A priori sample size estimations were conducted prior to the beginning of data collection using G*Power, Version 3.1.9.2 (54). Given that prior research had not produced definitive findings about the effect size to be anticipated, all power analyses used a medium effect size as the best educated guess (223) with the exception of Aim 3 which involved an examination of gender-based differences where large effect sizes were more consistently noted in the literature. Therefore, for Aim 3, an *a priori* sample size estimation conducted using G*Power, Version 3.1.9.4 (54) for an independent samples *t*-test with 2 groups, $\alpha = 0.05$, power of 80%, and a large effect size ($d = .80$) suggested a minimum sample size of 52 participants. For Aim 4, a multiple linear regression with five predictors was planned. The model was calculated with a significance threshold of $\alpha = 0.05$, power of 80%, and a medium effect size ($f^2 = .15$). Within these parameters, a sample size of 85 participants was determined to be ideal. For exploratory Aim 5 (hypotheses 5a and 5b), the estimation was conducted for multiple linear regression with 3 predictors. The model was calculated with a significance threshold of $\alpha = 0.05$, power of 80%, and a medium effect size ($f^2 = .15$). Within these parameters, a sample size of 77 participants was determined to be ideal.

Originally, the research team set a recruitment goal of 100 participants to account for expected attrition, as the current study provided no compensation to participants. Studies similar in design to this project that included a single interview encounter less than 2 hours with an inpatient Veteran population yielded a 3% refusal rate for participation (206); it is important to note that Veterans can get compensated for research activities. Given the time limits for the completion of this study, the final quantitative

sample size for this dissertation was 55 participants². Thus, only Aim 3 was adequately powered. For Aim 4, sufficient statistical power was not available and therefore, the findings must be interpreted with caution and are preliminary in nature. For Aim 5, exploratory analyses were conducted to review potential trends in the data and therefore, statistical power was not a notable issue of concern.

Qualitative Analysis: Grounded Theory

Aim 1 of the current study was analyzed using the grounded theory (62) method of qualitative analysis. The analysis team was composed of the Author and a clinical psychology postdoctoral fellow in the Suicide CPR Initiative Lab, with oversight from a doctoral level public health researcher with expertise in qualitative research methods. All members of the team were trained in qualitative methods. Grounded theory does not test hypotheses, but rather explores phenomena that are relatively unknown without *a priori* assumptions. The results of a grounded theory analysis are therefore distinct categories of information that describe a phenomenon, which are synthesized to form a conceptual model for understanding the phenomenon (222). As this methodology is unique from quantitative analysis, the methods will be reviewed in steps.

Step 1: Identify Phenomenon and Sample to be Studied

To start a grounded theory analysis, one must identify a phenomenon that is not well understood (222). As mentioned in Chapter 2 (*see page 66*), minimal research has been conducted on the topic of individual and dyadic characteristics within intimate partner relationships that may contribute to increased suicide risk (77). The research that

² The current study was completed as part of a doctoral dissertation project which necessitated that the Author complete the study prior to graduation. The study timeline was truncated as a result of delayed IRB processes and the Author's relocation.

does exist in this area is largely quantitative in nature and therefore focuses on correlations between self-reported or observed external events preceding relationship dissolution or increased suicide risk (88). This aspect of the literature neglects the narrative and subjective experiences of these individuals, which may add nuance and understanding to the field of suicide risk beyond what can be reported from self-report measures and observational studies.

Data collection in grounded theory is traditionally done as theoretical sampling, meaning that a sample of participants is identified based on the research questions and relevant criteria. After the first sample is interviewed, the data is analyzed and new participant criteria are generated based on the findings. The current study used purposeful sampling, meaning that the sample was collected based on predetermined criteria alone. This method of sampling was preferred for the current study because (1) the time required to collect, transcribe, and analyze each interview made theoretical sampling unfeasible, and (2) the WRNMMC IRB approved a particular set of recruiting parameters given the sensitivity of the research topic and the population (psychiatric inpatients). Therefore, the sample was collected based on the inclusion and exclusion criteria described above (see *Participants*, page 84).

Step 2: Semi-Structured Interview Development

After identifying a phenomenon and sample of interest, one must decide on data collection. The semi-structured interview created for this study (Intimate Partner Relationship and Suicide Risk Interview; Appendix A) was designed to allow the participant to discuss subjective motivations for suicide as related to the most recent intimate partner relationship. The interview was created by the combined efforts of the

Author and subject matter expert in the field of suicidology, Dr. Marjan Ghahramanlou Holloway (dissertation advisor). Interview questions were based on a comprehensive review of the scientific literature, identified gaps, and current theoretical perspectives about suicide.

More specifically, the interview is guided by the research questions outlined in Chapter 2 (*see page 66*) and repeated in Figure 2 below. It is important to have guiding questions when creating a semi-structured interview, so as to achieve balance between unfocused narrative from the participant and a focus on emerging concepts related to the phenomenon in question.

Broad research questions related to the main aim are then further distilled into theory-driven questions, and finally interview questions, as seen in Figure 2. Interview questions are logically derived from the original aim so as to accurately invoke a narrative of the phenomenon in question. The language is modified to be easily understood and foster a sense of conversation between the Researcher and the participant.

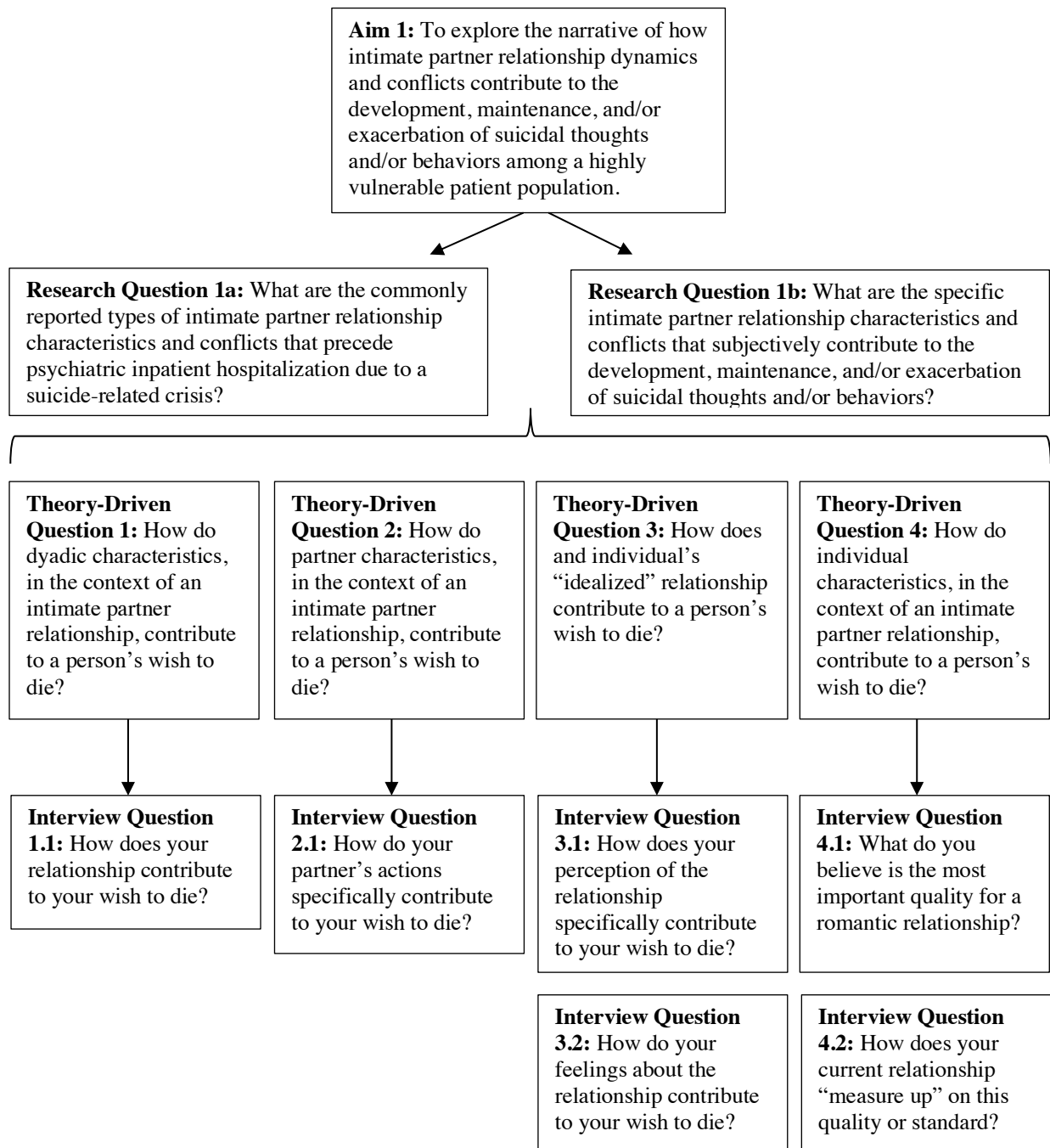


Figure 2. Semi-Structured Interview Question Development

Step 3: Pilot Testing the Interview

Pilot testing of the semi-structured interview was conducted within the research team supporting this dissertation to determine administration time, accuracy of the

interview questions in addressing the research questions, and clarity of interview question sentence structure, grammar, and overall comprehensibility. More specifically, the measure was piloted over two days at the Suicide CPR Initiative lab space. Mock interviews were performed by the Author with 11 individuals who consisted of: four Bachelor's level research assistants, one Bachelor's level curriculum writer for simulated clinical encounters, two Master's level research assistants (one of whom had prior military experience), one Master's level biostatistician, one active duty military graduate student, one doctoral-level bioethicist, and one doctoral-level public health researcher (both doctoral-level contributors have expertise in qualitative research). Individuals who participated in the pilot testing provided feedback which was documented by the Author and reviewed with the two doctoral-level experts in qualitative research methods. Feedback was appropriately incorporated to minimize administration length and use of psychological jargon and to maximize question clarity, and agreement between the intended meaning of the interview questions and the understood meaning of the questions. These edits resulted in the final interview form and format (See Appendix A) which was reviewed and approved by Dr. Holloway.

Step 4a: Transcription of Interviews

Transcription was achieved through the Author's use of Nuance Dragon Transcription Software, which is appropriate for use with confidential data. During transcription with this software, no personally identifiable information was used, as an extra protective factor for study participants. Transcriptions occurred simultaneously while the Author continued active recruitment and data collection. The purpose for this was so that the Author could familiarize herself with the content of the interviews and begin to formulate ideas about themes amongst the participants' stories. Traditionally in

grounded theory, transcription and analysis of the data would inform changes to the interviews with subsequent participants (222). The current study maintained the original interview for the duration of data collection for the following reasons: (a) to maintain focus on Aim 1 and relevance to the quantitative portion of the current study, (b) for ease of IRB approval, as updates would have required IRB approval due to the high risk nature of the sample, and (c) for expediency and standardization of the study encounter, which will continue to be used after the completion of the current study.

Grounded theory also dictates the use of memos during the data collection and transcription process (222). The Author made memos of her impressions after the interview and while transcribing the audio recordings. This process allows for the emergence of data throughout the analysis.

Step 4b: Saturation

During transcription, the Author determined that saturation had occurred. Saturation is a concept used in the collection and analysis of qualitative data that parallels power in quantitative analyses. Saturation in a qualitative data sample simply refers to the idea that the sample of data collected adequately represents the breadth of the phenomenon studied. Unlike a quantitative power analysis however, data saturation in qualitative research is not a target that can be acquired through an algorithm. In fact, satisfactory data saturation is often a barrier to conducting quality qualitative research (216). Fusch and Ness (216) outlined three potential indicators for data saturation: when there is sufficient evidence that the findings can be replicated in a future study, when further collection of data does not provide new insights, or when coding is no longer feasible. For the current study, all three of these conditions were met at various points of

data collection. The logic for stopping interview collection was due to the third saturation criteria: collection and coding were no longer feasible.

Step 5: Open Coding

To complete open coding, the author created codes based on a line by line reading of each of the transcripts. The Author then completed second-pass coding, in which existing nodes were reviewed, combined, condensed, and compiled into the first version of the code book. The Author then reviewed the coded portions of the transcripts corresponding to each node to create a definition for each node in the code book. This portion of the analysis resulted in further culling and consolidation of nodes. The Author then shared the code book with two doctoral-level qualitative researchers in the lab for review. Together, the research team discussed the nodes in detail, including appropriateness, clarity of definition, understood meaning from the context of the transcript, and relevance to the research questions. The Author incorporated feedback after multiple iterations of the discussion process. The result of this stage was 25 codes with definitions and examples agreed upon by the three-person qualitative research team. At that time, the Author and a postdoctoral fellow (hereafter referred to as Postdoc) in the Suicide CPR Initiative Lab conducted simultaneous coding of a selected participant transcript using the revised code book. Each coding of the transcripts was reviewed by both the Author and the Postdoc.

Step 6: Axial Coding

The Author and the Postdoc began the axial coding process by using the established codebook to code a selection of six transcripts from the total sample. The partners met to compare the use of the codebook and subsequent reliability, resulting in

updates and changes to the codebook. The Author and the Postdoc underwent several iterations of updating the codebook, recoding the transcripts, and discussing the definitions and applications of the code. Throughout this process, the Author incorporated the changes being made to the codes' definitions and applications to create axial codes representing emerging themes in the data. Themes were subsequently discussed in the meetings between the Author and the Postdoc after application to the data. Through several iterations of this process, the Author created a thematic model that was agreed upon by both coders. Final independent coding of three selected transcripts was conducted using the agreed upon themes and their underlying codes.

Step 7: Interrater Reliability, Agreement, and Bias

Agreement statistics were calculated for each coding iteration. Kappa was used to determine when a code needed to be reviewed; if kappa was .40 or below, the code was reviewed for clarification and the codebook was subsequently updated. The Author consulted with the supervising qualitative research methods subject matter expert, Dr. Lee-Tauler on the final interrater agreement statistics to determine if further evaluation was necessary for the purposes of the current study. The last iteration of independent coding of three separate transcripts was used to determine the interrater reliability statistics. Of note, the researchers finalized their use of the codebook using the variations in coding present in the last iteration of independent coding. Thus, the operationalized agreement of the codebook is thought to be *at least as good* as the resulting interrater agreement statistics. The interrater agreement statistics presented are (1) the percent agreement and (2) Cohen's kappa. The current study presents both measures of interrater

reliability to ensure that the codebook used is appropriate for use given the time constraints of dissertation completion.

The percent agreement statistic is the percentage of codes in the transcripts for which the partners independently agreed on the application of the same code (217). Percent agreement is an absolute measure of agreement among the raters in the coded transcripts (217). Absolute measures of reliability are appropriate for use in subjective coding of data where the validity of a coded concept is determined by its ability to be accurately recognized by a second coder, rather than the Author alone. This is common in qualitative research among the social sciences, where concepts are ostensibly more abstract than biomedical qualitative research. For the current study, the overall percent agreement between coders was 95.5% across all codes and cases.

Cohen's kappa is a relative measure of reliability that examines the interrater reliability when accounting for chance agreement between raters. For this study, Cohen's kappa was calculated using NVivo (130). The kappa coefficient is calculated for each independent theme and averaged by the NVivo software. Therefore, kappa is not affected by utterances that may be partially or completely coded into multiple themes. Cohen's kappa is most appropriate for use in qualitative research that involves the classification of data into predetermined categories, where the entirety of the data evaluated can be judged into a specific category. For the current study, kappa was calculated by examining the transcripts using NVivo (130). For the current study, the overall Cohen's kappa was .50.

Grounded theory, along with most other forms of qualitative research, faces the issue of defending bias in the quantitative sense that a very small number of researchers collects and interprets data that is only semi-structured in collection. The current study,

for example, employed the Author as the sole interviewer, introducing bias into the interviews. This matter is paradoxically integral to qualitative research. One assumption of qualitative research is that all analysis includes interpretation, and therefore the opportunity for researcher bias (222). In fact, the experience of the researcher is important in the process of qualitative analysis, as long as the interest and motivations are clearly understood by the researcher (222). While traditionally quantitative research attempts to correct for bias by standardization of measures and scoring, qualitative research does so by continual review of all research team members' bias in interpretation. As they arise, understandings and connections to the interviewer's own experiences are collected in memos to examine the formation of potential bias. Within the research team, biases are examined and discussed as a natural byproduct of analyzing the data. When proper measures such as these are taken in relation to the entire data analysis process, the results of the data analysis are valid (222).

CHAPTER 4: Results

SAMPLE CHARACTERISTICS

Recruitment for this dissertation study occurred over the course of almost 8 months, with a start date of March 2019 and an end date of November 2019. Consented participants consisted of 57 active duty, reserve, and retired service members as well as DEERS-eligible dependents hospitalized at the Walter Reed National Military Medical Center psychiatric inpatient unit. Two consented participants were ultimately withdrawn from the study because they did not complete study procedures: (1) the first individual was unable to participate due to a family visit; (2) the second individual was unable to participate due to concerns about confidentiality and suicide-related disclosures. A total of 55 consented individuals were included in study analyses as they completed the study procedures (*see Figure 3*).

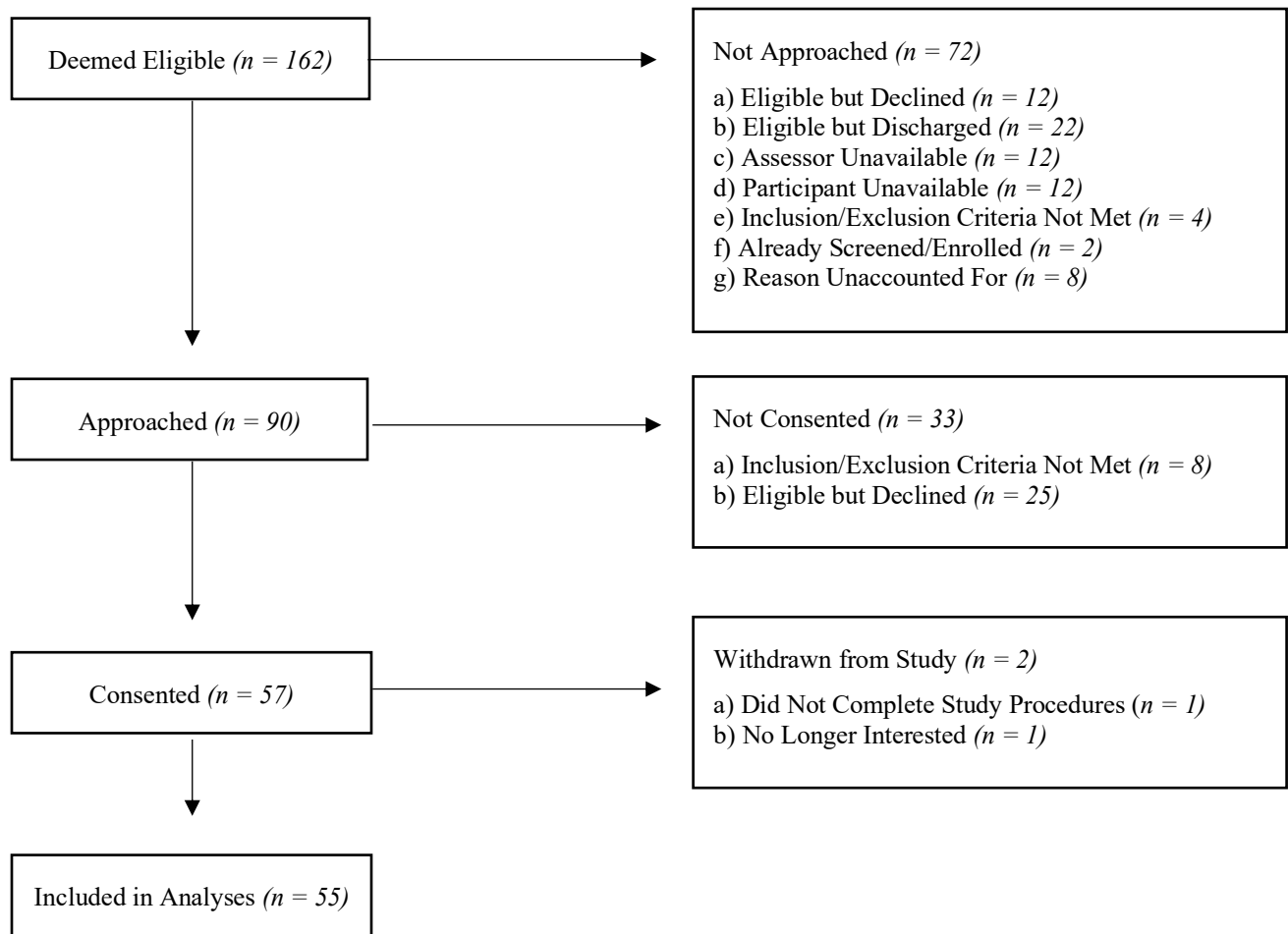


Figure 3. Study Recruitment Flow Chart

In terms of general demographics (see Table 1), the study sample ($N = 55$) was primarily male (70.9%), White (70.9%), not Hispanic or Latino (85.5%), heterosexual (81.8%), with a high school diploma or some college, but no college degree (78.2%), Christian/Catholic (41.8%), and with a mean age of 25.4 years ($SD = 6.4$). In terms of military characteristics for 51 out of the 55 participants (see Table 2), the majority were active duty (94.1%), enlisted (94.1%) and had no deployment history (68.0%). The most prevalent branch of service was the Marine Corps (37.3%), followed by the Army

(27.5%), and the Navy (25.5%). A fewer number of Air Force (7.8%) and the Coast Guard (2%) personnel were included in the study.

Table 1

Demographic Characteristics for Study Participants (N = 55)

Variable	<i>M</i>	<i>SD</i>
Age (years)	25.4	6.4
Variable	<i>n</i>	%
Gender		
Male	39	70.9
Female	16	29.1
Race		
White	39	70.9
Black	9	16.4
Biracial	5	9.1
Asian	1	1.8
Other	1	1.8
Ethnicity		
Not Hispanic or Latino	47	85.5
Hispanic or Latino	8	14.6
Education		
High school diploma or equivalent	22	40.0
Some college, no degree	21	38.2
Associate's degree	3	5.5
Bachelor's degree	6	10.9
Graduate degree	3	5.5
Religion		
Agnostic	6	10.9
Atheist	4	7.3
Catholic	6	10.9
Christian	17	30.9
Jewish	2	3.6
Multiple Religions	3	5.5
None	5	9.1
Protestant	1	1.8
Spiritual, but not religious	8	14.5
Other	3	5.5

Table 2

Characteristics for Military Participants (N = 51)

Variable	<i>n</i>	%
Branch of Service		
Marine Corps	19	37.3
Army	14	27.5
Navy	13	25.5
Air Force	4	7.8
Coast Guard	1	2.0
Service Component		
Active Duty	48	94.1
Reserve	1	2.0
National Guard	1	2.0
Cadet/Midshipman	1	2.0
Pay Grade		
E1 - E4/Junior Enlisted	30	58.8
E5 - E9/Senior Enlisted	18	35.3
O1 - O3/Junior Officer	1	2.0
O4 - O5/Senior Officer	1	2.0
Cadet/Midshipman	1	2.0
Deployment History*		
Yes	16	32.0
No	34	68.0

**n* = 50 deployable service members

In terms of relationship-specific characteristics (see Table 3), please note that all consented participants were required to be either currently in a romantic relationship or in a romantic relationship within the past 5 years. Of those entering the study, about half were currently in their first marriage (49.1%). Few participants (5.5%) reported they had been divorced (i.e., on second marriage) or separated. Most participants had no children (70.9%). The majority of participants reported a heterosexual orientation (81.8%) with

about 15% reporting a bisexual orientation. The majority of participants reported they had cheated on a partner or been cheated on by a partner (63.6%). About 1 out of every 10 participants reported a lifetime sexual assault experience (10.9%) and a lifetime physical assault experience (12.7%) by a romantic partner. Finally, approximately 54.6% of participants reported their romantic relationships sometimes, often, or always contributed to their thoughts about suicide whereas 43.7% reported that their romantic relationships rarely or never contributed to their thoughts about suicide.

Table 3

Relationship-Specific Characteristics for Study Participants (N = 55)

Variable	<i>n</i>	%
Relationship Status		
Never Married	12	21.8
Sexual Relationship	8	14.6
Dating Casually	2	3.6
Dating Seriously	1	1.8
Cohabiting	2	3.6
First Marriage	27	49.1
Second Marriage	2	3.6
Separated	1	1.8
Sexual Orientation		
Heterosexual	45	81.8
Bisexual	8	14.6
Homosexual	1	1.8
Questioning	1	1.8
Number of Children		
0	39	70.9
1	9	16.4
2	4	7.3
3 or more	3	5.5

Lifetime History of Cheating or Getting Cheated On ³		
Yes	35	63.6
No	18	32.7
Unsure	1	1.8
Unknown	1	1.8
Lifetime Sexual Assault by Romantic Partner		
Yes	6	10.9
No	48	87.3
Unknown	1	1.8
Lifetime Physical Assault by Romantic Partner		
Yes	7	12.7
No	48	87.3
Romantic Relationships Contributing to Thoughts about Suicide		
Never	15	27.3
Rarely	9	16.4
Sometimes	16	29.1
Often	12	21.8
Always	2	3.6
Unknown	1	1.8

QUALITATIVE AIM 1

Data analytic approach for aim 1

The goal of Aim 1 was to explore patient narratives to best understand how intimate partner relationship dynamics and conflicts contribute to the development, maintenance, and/or exacerbation of suicidal thoughts and/or behaviors. A grounded theory method of analysis was utilized to address this aim (62).

Grounded theory (62) emerged in 1967 as an empirical and logical approach for conducting qualitative research to reduce bias (172) and to advance theoretical

³ The question associated with this finding is “Have you ever cheated or been cheated on.” This language was used in this question and those asking about sexual and physical assault because of the ethical responsibilities of the Author to report specifically disclosed instances of abuse and Uniform Code of Military Justice (UCMJ) violations. This language was used to allow honest responding of the participants without fear of being reported or ethical complications.

formulations to be further tested. Glasser and Strauss promoted grounded theory to address the bias inherent in a traditional *a priori* approach to qualitative research (62). Because analyzing qualitative data with a preformed hypothesis might unintentionally skew the results, Glasser and Strauss suggested that the researcher systematically gather and analyze data by repeatedly removing themselves from analysis to review newly collected data (172). In this way, the data represents itself in the most accurate way possible, rather than supporting a hypothesis that may or may not be independently supported (62).

The grounded theory method of analysis was chosen for the phenomenon of suicide for its utility in removing the potential bias from the current body of literature that connects certain relationship factors with suicide. For example, as noted earlier in Chapter 1, the connection between relationship dissolution and suicide is often considered “common sense” based on personal and communal experiences, portrayals in the media, and widely disseminated theories that may or may not have reliable scientific and philosophical underpinnings. The qualitative method employed here was selected to help understand the phenomenon of suicide in the context of intimate partner relationship difficulties from a fresh perspective less rooted in current theory, allowing the participants to speak for themselves to create a dataset that might be compared with quantitative data from the current study and the literature writ large (88).

Results for Aim 1

As outlined in the methods (*See Qualitative Analysis: Grounded Theory, page 82*), the results of a grounded theory analysis are distinct categories that illuminate the phenomenon in question from the perspective of the participants who experience it. The

qualitative analyses for this project was completed with a sample size of 29 participants who engaged in semi-structured interviews aimed at exploring their perceptions of their intimate partner relationships and suicide crises. The resulting categories are synthesized to outline a conceptual model that can then be used to incorporate current research and inform future research. The following research questions guided item development for the semi-structured interview and are organized below to outline the categories that emerged (*see Table 4*).

Research Question 1a.

What are the commonly reported types of intimate partner relationship characteristics and conflicts that precede psychiatric inpatient hospitalization due to a suicide-related crisis?

In regard to longstanding characteristics and conflicts present in intimate partner relationships that preceded psychiatric hospitalization, two distinct categories emerged:

A1: Historical Relationship Influences and A2: Cognitive Dissonance in Relationship Values. These categories represented themes considered by participants as historical contributors to suicidal crises. Participants described the themes in these categories as the status quo for their experiences within romantic relationships in terms of what they learned to expect and what they started to think.

Research Question 1b.

What are the specific intimate partner relationship characteristics and conflicts that subjectively contribute to the development, maintenance, and/or exacerbation of suicidal thoughts and/or behaviors?

In regard to subjective increase in suicide thoughts and behaviors, participants' responses yielded three distinct categories: B1: Relationship Dynamics, B2: Contextual Factors, and B3: Motivation for Suicidal Self-Harm. The themes in these categories represented the

participants' understanding of the events, dynamics, thoughts, and beliefs that were more closely associated with the suicidal crisis that necessitated their hospitalization.

Table 4 <i>Categorization of Identified Themes of Relationship-Based Suicide Risk</i>			
Category	Theme	Definition	Quote ⁴
A1: Historical Relationship Influences (86%) <i>Research Question 1a</i>	A1.1: Poor Parenting + Childhood and/or Adulthood Abuse -35% total -38% of women -38% of men	Lifetime history of emotional, physical, and/or sexual abuse – poor parenting in childhood was captured as well	<i>He tried to wake me up so we could have sex, and I refused but he ended up forcing himself on me and he raped me.</i>
	A1.2: Negative Experiences in Romantic Relationships -45% total -63% of women -38% of men	Lifetime history of romantic relationship experiences that adversely impacted one's most recent romantic relationship	<i>I always keep my guard up in case she wants to leave me, I'm always prepared for the worst, I'm afraid she'll find someone more interesting.</i>
A2: Cognitive Dissonance: Relationship Values (97%) <i>Research Question 1a</i>	A2.1: Negative Self-View -38% total -25% of women -43% of men	Negative beliefs about the self in the context of the relationship, notated by the use of terms referring to self, such as <i>I was, I am, I have</i>	<i>I didn't let her explain. I wasn't a good husband or a good boyfriend really.</i>
	A2.2: Inadequate Intimacy -70% total -38% of women -81% of men	Perceived lack of and/or poor quality of emotional and/or physical intimacy	<i>She wasn't physically there, and I needed someone to be there.</i>
	A2.3: Sole Source of Attachment -41% total -63% of women	Reliance on relationship as the only source of social support	<i>My husband has to take care of everything, and he's my only source of support, and he has</i>

⁴ Quotes are provided as illustrative of the types of phrases coded for each theme and category. Note that there are many quotes contained within each theme and category which are not presented in this manuscript, and the quotes chosen were thought to be simple but meaningful examples.

	-33% of men		<i>so much on his plate.</i>
	A2.4: Impulsive Relationship Formation -56% total -50% of women -62% of men	Relationship was formed quickly based on generally superficial or idealistic qualities	<i>We just got to talking and decided, hey my life sucks, your life sucks, why don't we take a jump together?</i>
B1: Relationship Dynamics (79%) <i>Research Question 1b</i>	B1.1: Dishonesty -42% total -38% of women -48% of men	Dishonesty or lying in communication between partners	<i>It could have been some crazy anomaly, but either way she just lied to my face and I was having a hard time dealing with it.</i>
	B1.2: Vindictiveness -35% total -63% of women -29% of men	Words or actions intended or received as intentionally hurtful	<i>She got back at me by sending nudes to a dude and texts that said "I miss you daddy I wish you were here."</i>
	B1.3: Infidelity -52% total -38% of women -57% of men	One or both partners engages emotionally and/or physically with someone outside the relationship	<i>Her phone was out, open. I looked through it and I went to [app] where she was having a conversation with an Army dude and she was talking about her boyfriend, and how they fuck all the time, and I'm like "who the fuck?" I had to take a step back because it wasn't me!</i>
B2: Contextual Factors (93%) <i>Research Question 1b</i>	B2.1: Military Separation -56% total -38% of women -62% of men	Physical distance between partners secondary to military service, e.g., training, temporary duty, deployment	<i>She was far away. When she was with me, it's not a problem, no problem at all.</i>
	B2.2: Mental Health -48% total -75% of women	Mental health symptoms and/or diagnoses explicitly named or described	<i>I have been on medication for depression for 20 years. Every 5 years</i>

	-38% of men		<i>or so, my medicine just stops working and I feel a switch in my head.</i>
	B2.3: Alcohol Use -26% total -0% of women -38% of men	Use of excessive alcohol by one or both partners	<i>It wasn't even that serious, it just triggered something and I started drinking, I was drinking too much and like I said I don't remember but I was definitely drunk.</i>
B3: Motivation for Suicidal Self-Harm (42%) <i>Research Question 1b</i>	B3.1: Retaliation -42% total -13% of women -52% of men	Rationale for suicide ideation or attempt described as retaliatory	<i>I was hurt, I still had feelings for her and I wanted her attention, so it was kind of like I want you to feel the pain that I feel.</i>

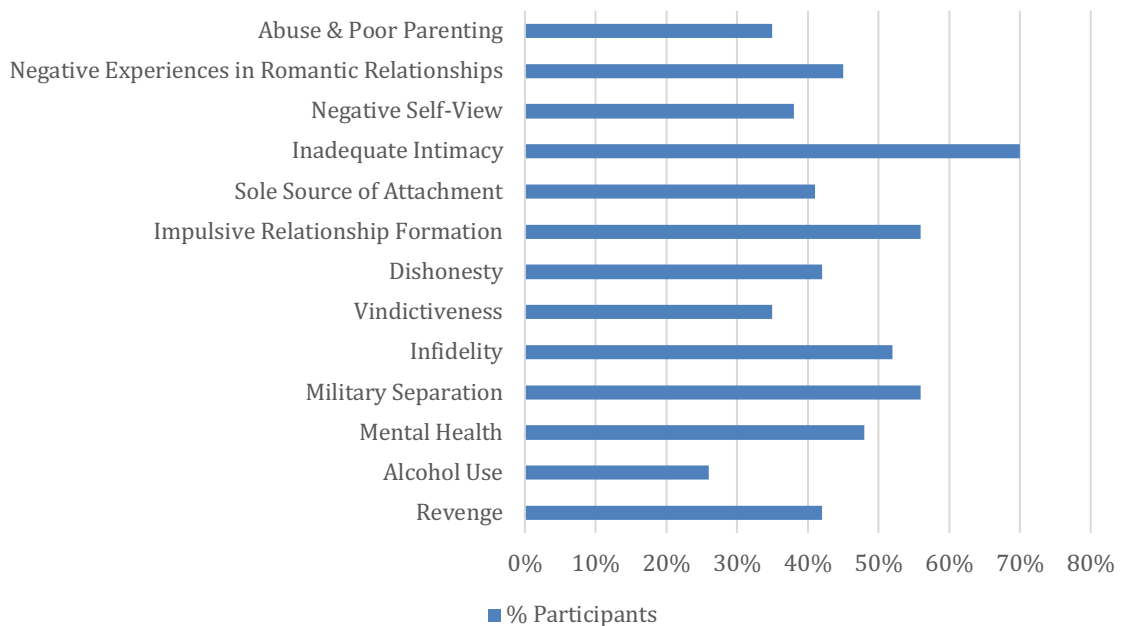


Figure 4: Prevalence of Themes Reported by Participants

Category A1: Historical Relationship Influences (86%)

Themes in this category were representative of individual characteristics developed by the participant prior to their engagement in the romantic relationship that became the focus of their suicide story, from childhood to adulthood. Participants discussed these themes as a method of offering the interviewer adequate context with which to understand their current crises.

Theme A1.1: Poor Parenting + Childhood and/or Adulthood Abuse (35%)

Adverse childhood experiences such as emotional, physical, and sexual abuse were commonly reported by participants as well as poor parenting in general. Ten of the 29 participants (35%) discussed an abusive or poor parenting experience as part of their conceptualization of their relationship issues. For some, the abuse occurred in their childhood or adolescence and shaped their understanding of boundaries and behaviors within relationships. Participants commonly described their abuse as a way of understanding the origins of traits they believed were problematic within their relationship. In the following quote, a participant described how she learned it was not safe to discuss her emotions:

Yes, my dad was verbally and physically abusive. He was very abusive to my mom and for us, he used to beat us with a switch or a cord. . . . he probably has some issues with anger, he drinks a lot and we were always made to just kind of cover-up and not talk about it, not talk about our feelings.

Participants often described situations that indicated they were poorly parented. These instances were not always described as negative or abusive but were important in

participants' understanding of how they developed increased suicide risk. In the following quote, a participant described how she connected her father's treatment of her with her ongoing adult relationship difficulties:

[He] really trained my brain to think a certain way, which really impacts how I view the world and my relationships.... whenever it involves someone being in charge of me or being superior to me. I value their opinion of me very strongly, and I assume it all the time, if they don't tell me what they think of me, I assume the worst.

Another participant reflected on why he was having trouble with relationships and found that he was unwilling to become a parent, which negatively affected his relationship with his partner:

I was sexually abused as a child...and even though I tried to tell [my mom,] she didn't do anything. I didn't want my child going through that as well.

Theme A1.2: Negative Experiences in Romantic Relationships (45%)

Half of all participants mentioned that experiences in their previous relationships and earlier in their current relationships impacted their expectations of romantic partners. Participants often internalized negative messages about themselves, their partners, and relationships in general. For example, the following participant cited his previous relationship as integral in his difficulty trusting romantic partners:

So like I said, the reason I brought up the whole story with my ex, I always expect that people are going to leave me, and I know what it's like to be alone, because it hurts.

Participants also highlighted a relational pattern of interaction between them and their partner in their current relationship that affected their trajectory towards hospitalization. The following quote describes a participant's reaction to the personality changes he perceived in his wife after finding out she had been unfaithful:

Yeah, I felt like I didn't really know her. That's really hard when you've been sleeping next to this person this entire time that's weird because she's been doing this for months and I've been sleeping next to her, waking up thinking she was somebody who I know but it's not the case at all and it's just like, who the hell has this person been?

Category A2: Cognitive Dissonance: Relationship Values (97%)

The next category in the development of a relationship-related suicide crisis pertained to the participants' relationship values – more specifically, to a cognitive dissonance experienced due to these values. Many participants described their values in terms of how they had been left unmet or violated, framing their responses as a dissonance between what they hoped their romantic relationships would be like and how they actually were. This category encompassed the historical and repeated impact of the established relationship patterns, which was manifested in the participants' views of important relationship factors such as intimacy and themselves as a partner. This category therefore served as the bridge between the individual and the dyadic characteristics. In this domain, participants described the ways in which their individual beliefs interacted with the actions and beliefs of their partners, and how the interaction contributed to their suicide story.

Theme A2.1: Negative Self-View (38%)

First, participants highlighted that their beliefs about themselves were integral in their experience of their romantic relationships. A third of participants described themselves as fundamentally “bad people”:

But either way I lose, no matter what. Because I’m just a bad person, no matter what.

Among those who did not believe they were fundamentally “bad people”, a common method of describing themselves was as a person overcome by negative emotions.

I’m kind of an angry dude, I get angry over little things sometimes, a lot of the time.

Many believed they had been tainted by their past, which negatively impacted their current understanding of themselves and their relationships.

I kind of developed a general distrust of most people. I can still make pretty good relationships, but that’s kind of why I really don’t want to open up. I let people in...but I’m at the point where I don’t think I’m the interesting one ever anymore. I don’t feel like I have a lot to offer.

Theme A2.2: Inadequate Intimacy (70%)

Over two-thirds of participants cited beliefs about inadequate sex and intimacy in their suicide stories. In many cases, the participants described a lack of physical affection or sex as a problematic aspect of the relationship. In a subset of cases, the lack of physical intimacy was listed as the catalyst for the decline of the relationship, often preceding actions the participant found regretful. The following participant described

how much he loved his partner, but that she was far away and he felt he needed more physical contact, which led him to be unfaithful:

I got into an argument with her about her coming over here, because I'm afraid of my decisions. I know that I get lonely and I tend to drift off. I have so much love for her, but I get so sexual sometimes and I get in the moment, and when it's over, I'm like why did I do this?

Other participants interpreted their sex and intimacy difficulties as an indication that there were problems throughout the relationship that were more systemic. In many of these cases, participants reflected on the state of their relationship and subsequently made the observation that their physical and emotional experiences were suffering as a symptom of larger problems within the relationship. The following quote reflects a participant's concern about her lack of sexual desire as a "red flag" for the future of her relationship:

I love him and I want to be with him forever, I just find myself not feeling as intensely. With the first guy, I was super emotional and attached, completely head over heels and with [husband] I am just comfortable. He complains a lot that I'm not as affectionate and he's really worried that I'm going to fall out of love with him...but maybe I'm standoffish because I'm always waiting for the other foot to drop.

Theme A2.3: Sole Source of Attachment (41%)

A third of participants had very little social support outside of their partner, which affected their expectations for their partner:

If you know you're going through a deep dark spot and you don't really have too many people you can call on or depend on, your partner is supposed to be that person you can lean on and depend onto give you some of those things.

The following participant described her experience with this theme as a positive part of her relationship, however she ended her statement with a clear contradiction about their commitment:

I have such a strong connection with my husband you know, when they say do or die, for better or worse. I know my husband, under no circumstances, would leave me. I think I could even cheat on my husband...he could cheat on me and [we] wouldn't leave....Sometimes when you've been with someone for so long it's not a matter of needing them, it's just a matter of do you want to start over with someone?

Some participants framed their unique connection with their partner as a clear detriment to their relationship and their mental health. Participants often described their partner as the only one who could meet their emotional needs, meaning that if their partners were unavailable or unwilling to do so, the participant suffered. The following participant described her feelings of outrage with her husband:

I depend [on him.] It's the only relationship I have. I don't have a friend I can call, I don't have parents, no siblings, I have no one. It's literally me and him and my daughters. I even asked him a million times, how can you, if you love me even a little bit, how can you just leave me with nothing?

This theme also impacted participants' wish to die directly. The following participant described the actions preceding his second suicide attempt, which occurred in the inpatient unit during his hospitalization prior to the interview:

"If you don't want to be with me then I have no reason to live. You're all I want, you're all I need. I know I've made a lot of mistakes to realize it, but that's what I want. So are you wanting me to get help so you can leave me?" And she [said] "I want to be with a healthy you." And I was like "thank you," I hung up the phone, and I went and attempted.

Theme A2.4: Impulsive Relationship Formation (56%)

Participants discussed the origins of their romantic relationships, which often occurred in high school or shortly thereafter and were based on idealistic or superficial criteria. Over half of participants described views of love and relationships that were somewhat immature or unrealistic. The following participant described meeting her wife and almost immediately deciding to marry:

It's been, you know, love at first sight, yeah that's exactly what it was. It's funny, I'm actually the second girl she's ever been with. She said that after our third date she said "you know I think you're my person!" and I was like ok!

Another participant met his wife while they were both psychiatrically hospitalized and also made a very quick decision to marry without knowing what he later considered key aspects of her personality:

And I looked into her eyes and she looked into mine and I just knew she was the one.

Other participants discussed aspirational relationship qualities that they believed could solve their relationship problems, such as mental health diagnoses or a dislike of military service. The following participant discussed his belief that the rift in his relationship caused by his infidelity would be resolved by leaving the military to live with his partner:

I can't handle both because it's like I want a relationship, that's what I'm more concerned about than my freaking career, if I'm with a career I'm not going to be happy making money, I want to be happy with my soulmate, building that up, then starting with a small job and building up from there instead of feeling like I'm trapped, like it's hell, it's not working for me.

Category B1: Relationship Dynamics (79%)

Participants described the use of language and behaviors that represent the manifestation of dyadic factors unique to their personal interactions with their partners.

Theme B1.1: Dishonesty (42%)

The most common communication issue was lying or dishonesty, which presented as a central problem in a third of participants' stories. The following participant became so distressed when recounting the gravity of her partner's lies that she asked to take a break from the interview and returned after crying quietly:

"It was all lies. I can't even remember all the lies."

Participants were also distressed by the lies they told their partners. The following participant described feeling guilty for lying to his partner, but doing it to save her from pain:

Yeah there were many times that she called and I chose not to answer. The reason I did that was because it hurt me so much to hear her voice....There

were a couple of nights where she was upset because I didn't answer her calls and I told her "I was busy, I was doing something."

The following participant only considered the impact of his dishonesty during treatment while hospitalized:

[I have learned from] all the groups and stuff, you need to let it all out. We need to break down the walls and let it all out. And one of my things was I need to tell her about [the infidelity], get it off my chest. It's helped, but it's screwed my relationship up.

Theme B1.2: Vindictiveness (35%)

Another relationship dynamic that occurred among a third of participants was the belief that their partner acted vindictively in their relationship:

She said it to hurt me. She was saying so much shit, how she finally has someone she enjoys having sex with, just to make me feel like less of a man.

There were also instances where it wasn't necessarily the words the partner said, but the tone and attitude perceived by the participant that was hurtful. The following participant described her reaction to calling her husband to ask about the status of their relationship and hearing another woman in the car with him:

I will never forget until the day I die, whether we end up together or not, my husband and his girlfriend were laughing at me when I was about to kill myself.

Some participants assumed their partners were not intending to be hurtful, but were impacted nonetheless. The following participant described how her partner's words reflected her own insecurities in a hurtful way:

He's just being honest, but it's depressing to me because it makes me feel like it's an example of how I value myself, like my self-worth is non-existent because I let someone do whatever they want with me and then throw me away like a piece of trash.

Theme B1.3: Infidelity (52%)

Over half of all participants' stories included infidelity or the threat of infidelity. A partner's infidelity was the most common, followed by the participant's infidelity, and in some cases infidelity on both parts. Infidelity negatively affected both partners and resulted in participants' reflecting on the impact of infidelity within their relationships. The following participant described feeling insecure in the relationship after learning his wife had slept with one of his close friends:

I wanted to love her, I do love her. I just wish I knew she loved me. Sometimes I feel that way, sometimes I don't. Sometimes I feel supported, sometimes I don't....My son makes me happy, but I want her to make me happy too. People talk so much shit, they're like "Awe, why the fuck are you still with her?" But I don't believe it. I don't know. Maybe I'm crazy for that.

Other participants highlighted an intense feeling of betrayal after being cheated on, which they interpreted as life-changing:

After I found that out I started, I bawled my eyes out. I had never felt so betrayed in my life. I guess I changed from there, I realized people are going to hurt you.

In a subset of participants, infidelity was rationalized as a side effect of being separated by the military and needing physical affection. Participants of this type generally told their partner they had been unfaithful, which is what they believed did irreparable damage to the relationship. For one participant, telling his wife of his infidelity made it harder for him to tell her about a subsequent time:

Even though we still talk, I feel alone. It doesn't make it right, what I did. I guess I'll spill the beans...I ended up cheating on her. And three days later, I told her because I couldn't live with myself....This is the part where it makes me sad and I want to be dead, because I did it again and I haven't told her.

Yet for another participant, telling his wife about one instance of infidelity and not the others saved him from further uncomfortable conversation despite knowing their relationship was over:

I knew we were getting divorced, I just wanted to shut her up for a second and make her feel how I felt. So I told her, "I've been unfaithful too" and she guessed that one person. I was planning on telling her everything else, but she stuck with that one and started freaking out so I wasn't going to tell her any more.

Category B2: Contextual Factors (93%)

Romantic relationships do not occur in a vacuum. Participants discussed factors that occurred outside their relationships that impacted their suicide risk development.

Theme B2.1: Military Separation (56%)

In over half of all cases, physical separation overlapped with other themes as a precursor or exacerbating factor, such as infidelity. The following participant described his geographical separation for work as a time of weakness, in which he felt pressured by the culture of his peers to engage in behaviors that were problematic for his relationship:

And while I was there it was a bunch of married guys just getting away from their wives, there were bars all outside, there were strip clubs, all this stuff. So we were living it up, plus we were getting paid for it, you know we had money to blow. We were getting drunk, and that led to infidelity with one person twice, and then another person once...and then another person once.

Separation was also blamed for unhappiness with life circumstances that likely had other contributing factors in addition to separation. The following participant described his military service and resulting separation from his partner as the sole reason for his unhappiness:

I'm just tired of this distance, I'm tired of being in the military, I'm tired of doing things I don't want to do. These things aren't benefitting me, it's just making me more depressed and making me make poor decisions. When we're together, I'm focused and happy, I can have a clear mind and concentrate.

Other participants cited separation as the direct cause of suicide ideation:

She left and went to [base a] and I was still stationed at [base b] and because of that separation we unfortunately had to break up, just because of the distance. We weren't able to see each other and it wasn't working,

and that was the first time I ever really had thoughts of, not really committing suicide but maybe hurting myself.

Theme B2.2: Mental Health (48%)

Mental health of either partner was often mentioned as a stressful or problematic relationship factor for half of all participants. The following participant described the toll exacted on her relationship by her husband's symptoms of PTSD:

My husband had just gotten out of the Army, he had been in for 4 years and he has PTSD, combat related PTSD. And it was really bad when he first got out, and that's when I met him, and that's when we got married, so you can imagine me with all my issues and sensitivities, because of the way I was raised and then him with his issues that involved rage and stuff like that. And, you know, you can't blame him... he was working on it.

Participants also reflected on how their own mental health struggles contributed to relationship difficulties:

But over the years it's just been a struggle to keep [up], you know to go out and spend time together, the time that we spent together got less and less. I just started feeling hopeless that we could fix it. [But] thinking back to those moments, I know that I was depressed, I was angry, I was going through these big mood swings, and I was covering up-

Some participants quoted diagnoses in explaining aspects of their behavior:

"I have borderline personality disorder, and with that disorder, I change my personality to be accepted."

Others described symptoms of psychiatric disorders that were important in their understanding of their problems within their relationships, such as the following participant who describes reexperiencing symptoms of PTSD.

I think the trauma, I wasn't having suicide thoughts with the trauma, I was just having the episodes happen because there were triggers that started giving me flashbacks that made me think I was reliving through that so it brought issues into my relationship.

Theme B2.3: Alcohol Use (26%)

Alcohol was a common response in a third of participants' narratives, used to address a range of problems: suppressing sexual desire, avoiding work stressors, avoiding emotions, and forgetting about betrayals. The following participant described using alcohol to cope with his partner's suspected betrayal.

I came into work drunk one day because I knew my wife was fucking around and I went out with my team leaders to a bar.... I started with 10 shots of Jack Daniels. I don't drink, it's just that in that instance, I wanted to drink.

Another participant cited alcohol use in response to making a tough decision about her relationship:

I kind of see that as the beginning of my problems, that's when I opted into [treatment]. You know, I'm not an alcoholic, but I was definitely drinking to escape my emotions and that's not good.

The following participant recalled incorporating alcohol to distract him from the pain of being separated from his partner, which caused more pain:

I decided to party every single weekend, lots of drinking. The next day they took me to the police station where I blew a crazy amount of alcohol. As soon as I saw my first sergeant that's when it started hitting me that I was in huge trouble. My life is gone, my wife is done with me, I've [cheated] again, she knows about everything, my company knows about everything. That's when I took the knives out.

Category B3: Motivation for Suicidal Self-Harm (42%)

Many participants outlined their thoughts about suicide, to include their understanding of when suicide is appropriate, how it could be useful, or what it means about themselves to decide to suicide.

Theme B3.1: Retaliation (42%)

Over a third of participants discussed their use of suicide ideation or attempts to send a message to loved ones about their needs not being met or to exact revenge. The following participant reflected on his need for more attention and reassurance from his partner, who had been distant for a while:

So it went from one thing to alright well I'm gonna kill myself, threw it out there to see where she was at with it. And I received a response, so for me it was like okay she does care. I need that, I feel validated by that. And then I did it a couple times over that couple week period, mostly to elicit a response from her.

Others had not reflected on their intentions until being interviewed, and realized their suicidality had a retaliatory aspect in addition to their other reasons. The following

participant admitted during the interview that revenge was a small part of his decision to kill himself:

I just felt extremely alone and hopeless, I wasn't enjoying anything, I was just unhappy waking up. So suicide would have ended that. Simple. And I guess also a small part of it is I like the thought of her reacting to that, a selfish thought, but I think that a pretty jerky, dick move.

Using suicide as revenge was not always directed toward the romantic partner. One participant described a “payback” aspect to his suicide attempt aimed at his command’s lack of empathy for his struggles:

My command, I was kind of reaching out to them for help before it led to this and I kind of felt like my command was pushing it off, so I felt like me reaching out for help and [them] not giving it to me, this would be me sending the message that they were basically sending out, that they don't want to help anyone. So this happened because of that.

Summary of Qualitative Findings

Qualitative analysis of participant transcripts resulted in common themes linking intimate partner relationships and suicide ideation or attempt, which were organized into categories to create a conceptual model. These themes supported the relevance of intimate partner relationships in the development and maintenance of suicide crises. More specifically, the results of the qualitative analysis highlighted the importance of relationship-specific individual and dyadic factors in the individuals’ experiences of suicide ideation and/or behaviors. The patterns across the transcripts supported the notion that suicide crises are not concrete or distinct, rather, they are the result of the intersection

of numerous precipitating and maintaining factors that have been incorporated into the individual's thoughts about themselves, others, expectations for their relationships, and their interpretations of their partners' actions.

QUANTITATIVE AIM 2

Data Analytic Approach for Aim 2

The goal of specific aim 2 was to characterize romantic attachment style, relationship self-efficacy, relationship satisfaction, and conflict-induced distress within a sample of psychiatric inpatients admitted to a military treatment facility following a suicide-related crisis. To address this aim, information from the demographic forms as well as the CSI, ECR-R, SERR, and RPS-M were collected via participant self-report and descriptively analyzed using SPSS Version 25.0 (76).

Results for Aim 2

Table 5 presents means, standard deviations, minimums, and maximums for all measures used in the current study. The majority of participants completed all measures, with the exception of one participant who did not respond to the CSI and the RPS-M (participant declined to give a reason for not responding). The Experiences in Close Relationships Scale, Revised (ECR-R) measured anxious and avoidant romantic attachment. The average score for anxious romantic attachment style was 3.9 ($SD = 1.6$). The average score for avoidant romantic attachment style was 2.8 ($SD = 1.1$). The

Relationship Problem Scale, Modified (RPS-M) measured the presence, severity, and resulting distress of problems with romantic relationships (conflict-induced distress). The average score was 27.8 ($SD = 16.2$). The Couples Satisfaction Index (CSI) was used to measure relationship satisfaction. The average score was 105.1 ($SD = 33.0$). The Self Efficacy in Romantic Relationships Scale (SERR) was used to measure relationship self-efficacy. The average score was 72.0 ($SD = 18.6$). Finally, the Scale for Suicide Ideation (SSI) was used to measure worst lifetime suicide ideation severity. The average score was 25.4 ($SD = 7.7$).

QUANTITATIVE AIM 3

Data Analytic Approach for Aim 3

The goal of specific aim 3 was to examine gender differences in romantic

Table 5

Results of Study Variable Measures

Variable ⁵	N	<i>M</i>	<i>SD</i>	Min.	Max.
ECR-R: Anxious Romantic Attachment	55	3.9	1.6	1.0	6.7
ECR-R: Avoidant Romantic Attachment	55	2.8	1.1	1.3	6.6
RPS-M: Conflict-Induced Distress	54	27.8	16.2	0.0	63.0
CSI: Relationship Satisfaction	54	105.1	33.0	19.0	155.9
SERR: Romantic Self-Efficacy	55	72.0	18.6	30.0	103.0
SSI: Worst Lifetime Suicide Ideation Severity	55	25.4	7.7	0.0	38.0

attachment, relationship self-efficacy, relationship satisfactions, and conflict-induced

⁵ Note. ECR-R = Experiences in Close Relationships Scale, Revised, RPS-M = Relationship Problem Scale, Modified, CSI = Couples Satisfaction Index, SERR = Self-Efficacy in Romantic Relationships Scale, SSI = Scale for Suicide Ideation.

distress within a sample of psychiatric inpatients admitted to a military treatment facility following a suicide-related event. To address this aim, information from the demographic form, the CSI, ECR-R, SERR, RPS-M, and SSI-W were collected via patient self-report. Independent-samples *t*-tests were performed to determine statistically significant gender differences using SPSS Version 25.0 (76).

Results for Aim 3

An independent samples *t*-test was conducted to determine between group differences between gender and each of the CSI, ECR-R, SERR, RPS-M, and SSI-W measures. Hypothesis 3a proposed that men, compared with women, would demonstrate greater anxious and avoidant romantic attachment, lower relationship self-efficacy, higher relationship satisfaction, and greater conflict-induced distress. Hypothesis 3a was not supported. Gender was not a significant determinant of difference between any of the pertinent variables in the current sample, and therefore was not included as a covariate in subsequent analyses.

Table 6

Comparison of Responses to Study Measures by Gender

Variable ⁶	Women (<i>n</i> = 16)		Men (<i>n</i> = 39)		<i>t</i>	<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
CSI: Relationship Satisfaction	111.0	30.8	102.7	33.9	-.84	52	.4032
ECR-R: Anxious Romantic Attachment	3.9	1.9	3.9	1.5	.06	53	.9546
ECR-R: Avoidant Romantic Attachment	3.1	1.5	2.7	0.9	-1.24	53	.2193
SERR: Relationship Self-Efficacy	73.4	22.5	71.5	17.1	-.34	53	.7325
RPS-M: Conflict-Induced Distress	28.6	20.9	27.4	14.1	-.25	52	.8016
SSI: Worst Lifetime Suicide Ideation Severity	26.9	8.4	24.8	7.5	-.92	53	.3606

QUANTITATIVE AIM 4**Data Analytic Plan for Aim 4**

The goal of specific aim 4 was to evaluate the association among romantic attachment, relationship self-efficacy, relationship satisfaction, conflict-induced distress, and suicide ideation severity within a sample of psychiatric inpatients admitted to a military treatment facility following a suicide-related crisis. Hypothesis 4 a stated that higher levels of anxious romantic attachment and conflict-induced distress, and lower levels of relationship self-efficacy and relationship satisfaction would be associated with worst lifetime suicide ideation severity. The current study included 55 participants; therefore this aim was underpowered. Post hoc analysis indicated that this Aim achieved

⁶ Note. CSI = Couples Satisfaction Index, ECR-R = Experiences in Close Relationships Scale, Revised, RPS-M = Relationship Problem Scale, Modified, SERR = Self-Efficacy in Romantic Relationships Scale, SSI = Scale for Suicide Ideation.

57% power with the 55 participants included. The analysis was conducted to preliminary understand trends and to inform future studies using larger sample sizes.

Independent Variables (IVs): (X₁) Anxious Romantic Attachment, (X₂) Avoidant Romantic Attachment, (X₃) Relationship Self-Efficacy, (X₄) Relationship Satisfaction, (X₅) Conflict-Induced Distress

Dependent Variable (DV): (Y₁) Worst Lifetime Suicide Ideation Severity

Results for Aim 4

A multiple linear regression analysis was conducted to evaluate the association among romantic attachment, relationship self-efficacy, relationship satisfaction, conflict-induced distress, and suicide ideation severity within a sample of psychiatric inpatients admitted to a military treatment facility following a suicide-related crisis. Collinearity diagnostics indicated that assumptions of multicollinearity were not violated, as the tolerance for all variables was above .10 and the variance inflation factor (VIF) for all variables was less than 3. The data met the assumption of independent errors (Durbin-Watson value = 1.808). The histogram of the standardized residuals indicated that the data consisted of normally distributed errors, as did the normal P-P plot of standardized residuals. Similarly, the scatterplot of standardized residuals showed that the data met assumptions of homogeneity of variance and linearity. Finally, the data met the assumption of non-zero variances, as the variance statistic for all variables was greater than 0. The model is presented in Table 7.

The regression equation was not statistically significant ($F(5,47) = 1.26, p = .2979$) with a R^2 of .118. Participants did not show evidence of a significant association between their anxious and avoidant romantic attachment, relationship satisfaction,

relationship self-efficacy, conflict-induced distress, and worst lifetime suicide ideation severity.

Table 7

Table of Correlations for Study Variables

Variable ⁷	1	2	3	4	5	6
1. CSI: Relationship Satisfaction	---					
2. ECR-R: Anxious Romantic Attachment	-.426	---				
3. ECR-R: Avoidant Romantic Attachment	-.378	.316	---			
4. SERR: Relationship Self-Efficacy	.347	-.556	.410	---		
5. RPS-M: Conflict-Induced Distress	-.696	.232	.182	-.180	---	
6. SSI: Suicide Ideation Severity	.125	.199	-.100	.051	.010	--

Table 8

Predictors of Suicide Ideation Severity

Variable ⁸	<i>B</i>	SE	β	<i>t</i>	<i>p</i>	95% CI for <i>B</i>
Constant	9.380	11.304	0	.830	.4108	[-13.359, 32.120]
CSI: Relationship Satisfaction	.068	.049	.290	1.381	.1738	[-.031, .166]
ECR-R: Anxious Romantic Attachment*	1.812	.822	.376	2.205	.0324	[.159, 3.465]
ECR-R: Avoidant Romantic Attachment	-.406	1.073	-.059	-.379	.7067	[-2.566, 1.753]
SERR: Relationship Self-Efficacy	.015	.071	.038	.219	.8279	[-.127, .158]
RPS-M: Conflict-Induced Distress	.054	.091	.113	.589	.5589	[-.121, .237]

* $p < .05$

⁷ Note. CSI = Couples Satisfaction Index, ECR-R = Experiences in Close Relationships Scale, Revised, RPS-M = Relationship Problem Scale, Modified, SERR = Self-Efficacy in Romantic Relationships Scale, SSI = Scale for Suicide Ideation.

⁸ Note. CSI = Couples Satisfaction Index, ECR-R = Experiences in Close Relationships Scale, Revised, RPS-M = Relationship Problem Scale, Modified, SERR = Self-Efficacy in Romantic Relationships Scale.

EXPLORATORY AIM 5

Data Analytic Plan for Aim 5

The goal of Exploratory Aim 5 was to examine the moderating effects of anxious romantic attachment and relationship self-efficacy on the association between conflict-induced distress and suicide ideation severity within a sample of psychiatric inpatients admitted to a military treatment facility following a suicide-related crisis. This was achieved through conducting two moderation models using the SPSS PROCESS macro created by Dr. Hayes (215). Hypothesis 5a proposed that individuals who report higher anxious romantic attachment would have a stronger positive relationship between conflict-induced distress and worst lifetime suicide ideation severity. To test Hypothesis 5a, anxious romantic attachment was included as a moderator variable. Hypothesis 5b proposed that individuals who report lower relationship self-efficacy will have a stronger positive relationship between conflict-induced distress and worst lifetime suicide ideation severity. To test Hypothesis 5b, relationship self-efficacy was included as a moderator variable. Analyses were conducted in SPSS Version 25.0 (76). The current study included 55 participants; therefore this aim was underpowered. A post-hoc analysis of the available power indicated that for both hypothesis 5a and 5b, 63% power was achieved with 55 participants. The analysis was conducted to preliminary understand trends and to inform future studies using larger sample sizes.

Independent Variables (IVs): (X_1) Conflict-Induced Distress

Moderator Variables: (M₁) Anxious Romantic Attachment, (M₂) Romantic Self-Efficacy

Dependent Variable (DV): (Y₁) Worst Lifetime Suicide Ideation Severity

Results for Aim 5

Hypothesis 5a

To investigate the potential moderating effects of anxious romantic attachment on the relationship between conflict-induced distress and suicide ideation severity, a simple moderator analysis was performed using the SPSS PROCESS macro (215).

Multicollinearity was addressed by centering the variables. The overall model, described in Table 6, for Hypothesis 5a was not statistically significant, ($R^2 = .11$, $F(3,50) = 2.06$, $p = .1170$). The interaction term between anxious romantic attachment and conflict-induced distress was also not significant ($t(50) = -1.65$, $p = .1061$).

Table 9

Moderator Analysis for Anxious Romantic Attachment

Variable	<i>B</i>	SE	<i>t</i>	<i>p</i>	95% CI for <i>B</i>
Constant	14.61	4.88	2.99	.0043	[4.80, 24.42]
Conflict-Induced Distress	.22	.16	1.36	.1789	[-.10, .55]
Anxious Romantic Attachment*	3.00	1.26	2.39	.0209	[.47, 5.53]
Conflict Induced Distress x Anxious Romantic Attachment	-.06	.04	-1.65	.1061	[-.14, .01]

* $p < .05$

Hypothesis 5b

To investigate the potential moderating effects of romantic self-efficacy on the relationship between conflict-induced distress and suicide ideation severity, a simple

moderator analysis was performed using the SPSS PROCESS macro (215). As for hypothesis 5a, multicollinearity was addressed by centering the variables. The overall model, described in Table 7, for Hypothesis 5b was not statistically significant ($R^2 = .03$, $F(3,50) = .52$, $p = .6714$). The interaction term between romantic self-efficacy was also not significant ($t(50) = 1.10$, $p = .2756$).

Table 10

Moderator Analysis for Romantic Self-Efficacy

Variable	<i>B</i>	SE <i>B</i>	<i>t</i>	<i>p</i>	95% CI for <i>B</i>
Constant	37.36	10.06	3.72	.0005	[17.16, 57.56]
Conflict-Induced Distress (centered)	-.34	.31	-1.08	.2834	[-.97, .29]
Romantic Self-Efficacy (centered)	-.15	.12	-1.25	.2188	[-.40, .09]
Conflict Induced Distress*Romantic Self-Efficacy	.00	.00	1.10	.2756	[.00, .01]

CHAPTER 5: DISCUSSION

Targeting a high risk suicidal inpatient psychiatric sample at a military treatment setting, the broad objectives of this dissertation study were threefold: (1) to understand how intimate partner relationship dynamics and conflicts contribute to the development, maintenance, and/or exacerbation of suicidal thoughts and/or behaviors; (2) to understand romantic attachment style, relationship self-efficacy, relationship satisfaction, and conflict-induced distress as well as any potential gender differences; and (3) to understand the associations among romantic attachment, relationship self-efficacy, relationship satisfaction, conflict-induced distress, and suicide ideation severity.

Intimate partner relationships are a common occurrence in the typical adult life, and particularly for members of the military. Intimate partner relationships in the military are qualitatively different than for civilians, with couples getting married younger and often having known each other for less time (17, 121). Military relationships also involve unique stressors, such as deployment, training separations, and long work hours (6,128). When these relationships are healthy and satisfactory, they may serve as a protective barrier against adverse outcomes including suicide (8,78). However, with the added pressures associated with military service, when these relationships are problematic and unsatisfactory, they have the potential to increase adverse outcomes including suicide risk. Current literature on the topic of intimate partner relationships and suicide risk within the military population is somewhat limited. While there is a plethora of research devoted to the study of suicide in the military and simultaneously a body of literature exploring factors precipitating divorce and relationship dissolution, the two concepts have rarely been studied together.

This study used a retrospective, cross-sectional, mixed methods design to explore the associations between intimate partner relationships and suicide risk among military service members and their partners. Participants were recruited from the largest national military psychiatric inpatient setting within 2-weeks of hospital admission for a suicide-related event. Data collected consisted of quantitative information derived from a series of self-report and clinician-administered measures specifically assessing romantic attachment styles, relationship self-efficacy, relationship satisfaction, and conflict-induced distress as well as worst severity of their suicide ideation over their lifetime. A sub-section of participants completed a semi-structured interview designed to qualitatively uncover individual and dyadic factors in their relationships that affected their suicidality by their own report. Interviews were audio-recorded, transcribed, and thematically coded using a grounded theory approach.

QUALITATIVE FINDINGS

All participants were either in a current romantic relationship or in a romantic relationship within the past 5 years. Half reported their romantic relationships sometimes, often, or always contributed to their thoughts about suicide. When considering historical influences on their romantic relationships, the recent psychiatric hospitalization, and the development, maintenance, and/or exacerbation of their suicidal thoughts and behaviors, participants' narratives reflected some common themes. The most commonly occurring themes highlighted inadequate intimacy, impulsive relationship formation, experiences with infidelity, and the overall stress of military separation. Moreover, retaliation was reported by two out of every five respondents as a motivational factor for suicidal self-harm. Overall, participants appear to have experienced developmental and contextual

hardships that contributed to the severity of the problems in their current or most recent relationship.

More specifically, analysis highlighted that the development of suicide risk was not secondary to a series of concrete events within a relationship, but rather the result of an interaction of individual and dyadic characteristics across the lifespan (Aim 1). This is in concordance with the newest available literature describing the connections between intimate partner relationships and suicide, which suggests that despite data regarding common types of relationship stressors that precede suicide risk, development of such cumulative risk is much more complex than the separate effects of specific conflicts (88). What the qualitative findings highlight is that intimate partner relationships have the potential to play a significant role in the development, maintenance, and exacerbation of suicide risk for service members and their partners via an interplay among various historical influences, cognitions about relationship values, relationship dynamics, contextual factors, and motivations for suicidal self-harm. Overall, based on the qualitative findings in this dissertation, Figure 3 depicts a proposed conceptual model, consisting of all of these concepts, to inform future research. A more fine-grained discussion of the qualitative findings are presented below.

The Intimate Partner Relationships and Suicide Risk (IPR-SR): A Proposed Conceptual Model to Inform Future Research

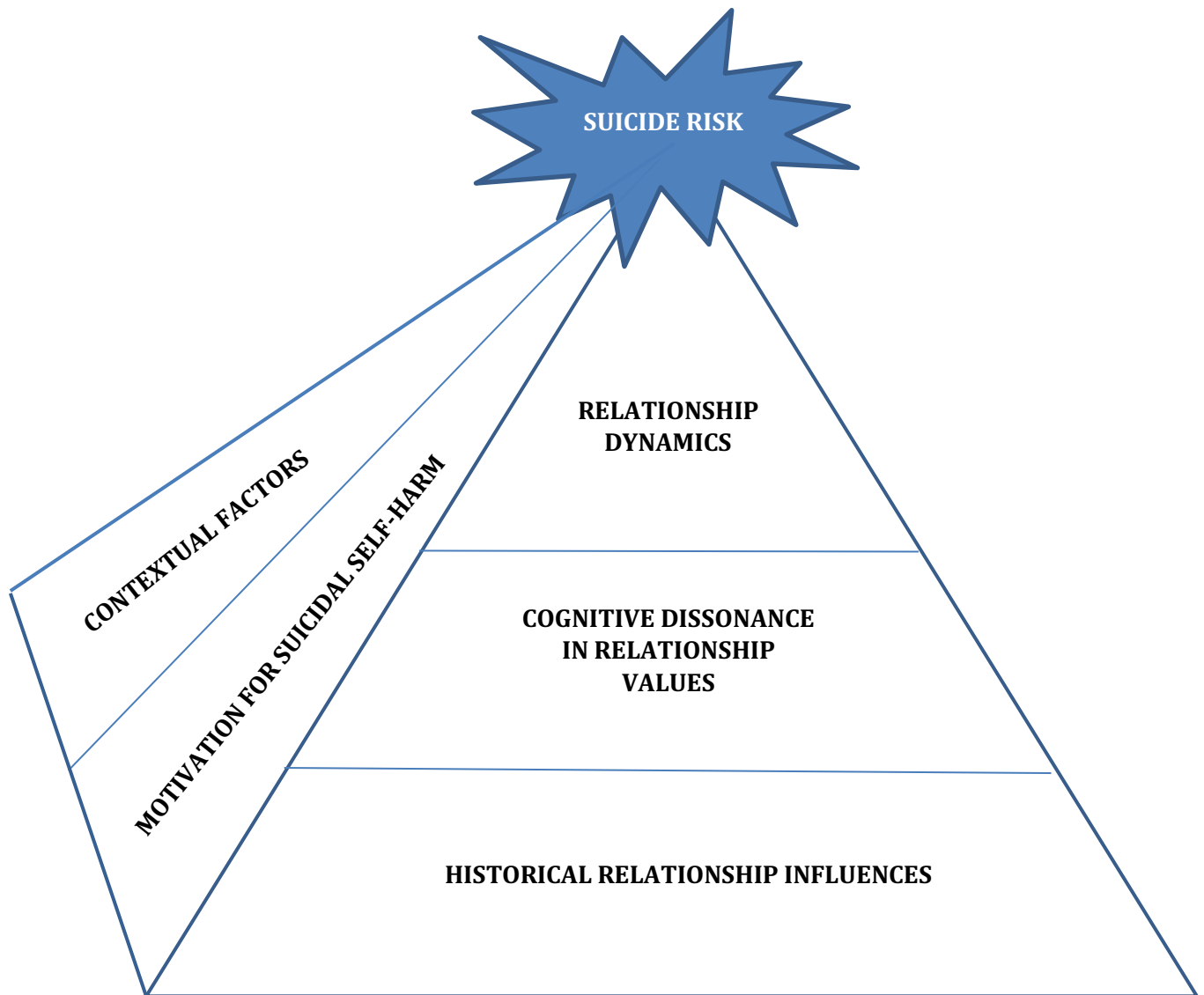


Figure 5. The Intimate Partner Relationship and Suicide Risk (IPR-SR) is a hierarchical model of understanding the development of suicide risk that resulted from the current study's qualitative analysis. The themes that emerged did so in 5 categories, which are discussed later in this chapter. 3 of the 5 categories of themes are hypothesized to interact in a hierarchical manner. The MoRBSR is the hierarchy through which risk is elevated for a given stressful situation.

Historical Relationship Influences

The experience of a stressful relationship event such as a miscommunication or a conflict is first processed through the individual's historical relationship influences.

Historical relationship influences are conceptualized as the individuals' foundational layer in the development of vulnerability to a suicidal crisis. Whether these foundational experiences are from interactions with parents, caregivers, older siblings, or from other early relationships such as an impactful romantic partner or first spouse, these historical relationships influence one's relational functioning throughout life. These historical relationship influences teach individuals about how they may be treated in future relationships, what they can expect from a partner, and ways in which to cognitively, emotionally, and behaviorally function in relationships – and of course, depending on the unique circumstances and history of each person, this cognitive, emotional, and behavioral functioning can be dysfunctional and problematic.

This finding is supported by the literature describing the development, importance, and longevity of attachment styles (163). Attachment development that occurs in infancy is a prime example of how early relationship learning from caregivers as well as other family members produces potential vulnerabilities later in life. As reviewed in Chapter 1, an individual's experience of Adverse Childhood Experiences (ACEs) is likely to increase their overall vulnerability for suicide risk (5, 44, 202) and much of this can happen through problematic attachment formation and a sense of insecurity as well as mistrust. Not surprisingly, the participants in this study commonly had poor relationship modeling through either childhood neglect, abuse, or via other negative parenting or caregiver related experiences in their development. This suggests

that while these experiences are themselves risk factors for suicide, they also serve as the foundation for lifetime relationship-based suicide risk more specifically.

Cognitive Dissonance in Relationship Values

Relationship values are understood as the individuals' beliefs about themselves and romantic relationships; these beliefs subsequently affect the dyadic nature of their interactions with their romantic partners and are likely closely related to individuals' core beliefs. Relationship values were observed to be directly related to individuals' historical relationship influences and in this context, these values directly impacted the individuals' experiences of and participation in relationship dynamics. As reviewed in Chapter 1, differences in beliefs about intimacy and sexuality resulted in value differences within the dyad, which often resulted in conflict (155). Of note, for many participants, the resulting conflict was largely internal, affecting their dyadic interactions in a more nuanced manner than if they had argued overtly about these differences. This internal conflict was conceptualized as cognitive dissonance regarding the individuals' idealized relationship values. This is *why* the construct of relationship values was considered as creating a cognitive dissonance for the current sample.

A finding more specifically related to the military is the understanding of what makes a good relationship. Participants often discussed the concept of "just knowing" someone would make a good partner. Rather than choosing a partner based on a critical analysis of their historical relationship patterns or current life and career values, participants in this sample often reflected that they chose their partner hastily, based on convenience, or after experiencing the phenomenon of "love at first sight." This is

reflected in the literature reviewing common stressors for military couples, specifically considering the young age of marriage for many enlisted service members. Participants noted a somewhat naïve understanding of what makes a good partner, and paired with incentivized marriage, individuals may find themselves in relationships that reflect negative relationship patterns they experienced in their past or that don't foster healthy psychological development in young adulthood.

Another potentially problematic factor involving relationship values for service members is the known negative effects of isolation. As noted in Chapter 1, isolation can have a detrimental effect on physical and mental health (150). Service members who endure frequent relocation, deployment, separation from family and friends, and long training hours are likely to develop a need for companionship. This is reflected in the participants' description of social support as a pertinent relationship value and may explain the finding that many participants felt their partner was and should be their only source of social support. Many participants reflected on problems in their relationships stemming from their partner serving as their only support amidst physical, geographical, and social isolation secondary to aspects of military service, which often proved problematic.

Relationship values thus develop from the individuals' historical experiences as well as contextual factors, which are described later in this chapter. Relationship values are thought to prime the individual for interpretation of their day-to-day interactions with partners as positive or negative (63). This category is therefore integral in the translation of historical relationship influences to the experience of conflict within the relationship and subsequently, suicide risk.

Relationship Dynamics

The final layer of relationship-based suicide risk development is the dynamics of the relationship itself, which includes aspects of failed or harmful communication and notable events in the relationship, primarily infidelity in this sample. These themes are evidence of the final stage in the increase in suicide risk because they represent the interaction of individual and dyadic factors. According to the proposed model in this dissertation, individuals who are already at a higher risk for suicide are more likely to experience difficulties in their current relationships. Participants followed this model, describing concrete communication barriers such as lying as well as communication problems that enact the participants' experience of problematic relationship learning in the past. It is likely that these developmental factors increased the likelihood they would interpret potentially neutral stimuli as hurtful or negative. This phenomenon is known to the literature on relationship maintenance and reciprocity (63), but has not yet been applied to suicide risk. Individuals in this study likely learned from previous relationships to expect malice from others, and therefore might interpret actions or statements by their partners as malicious.

The majority of the current sample experienced infidelity in some way. Interestingly, the mere fact that infidelity occurred was never cited as the sole reason for suicide ideation or attempt for any of the interview participants. Rather, increased risk appeared to be rooted in historical relationship influences and individuals' values / core beliefs about relationships. Participants who experienced infidelity in their relationships also experienced dissonance in their beliefs about themselves, relationship values, and

relationship qualities. Borne from the theme of infidelity, the category of relationship dynamics also includes other notable events within the relationship, not as risk factors themselves but as catalysts for questions about commitment and feelings of betrayal within the relationship. Some notable events were seemingly innocuous, suggesting that the interpretation of said events was more impactful for increasing suicide risk than the event itself. Participants' interpretations were consistent with the current literature's understanding of factors that decrease overall relationship satisfaction, such as feeling misunderstood by a partner (63), becoming rigid or defensive in communication (20), and perception of unequal commitment (16). The proposed model in this dissertation connects these known detrimental ways of thinking to a historical predisposition for developing these thinking styles. This fusing of past and current relationship learning is a significant component of the newly proposed model, as previous literature reviewing relationship dissolution as a risk factor for suicide neglects the increased risk for individuals that occurs within their relationship prior to dissolution, which may be a crucial period for intervention.

Contextual Factors and Utility of Self-Harm

Themes in this category are represented in the proposed model as a separate face of the pyramid, as they occur outside of the individuals' relationship learning history. Content in this theme connects the present study to the current body of literature that highlights the importance of concrete contextual factors and conflicts associated with suicide risk overall. Participants frequently identified separation as a military-related relationship stressor. In many instances, separation overlapped with other themes, such as

relationship patterns, beliefs about self, and sex and intimacy. Interestingly, separation was often cited as a rationale for infidelity, where many participants felt their need for physical affection took over their ability to remain faithful in a relationship, reflecting their relationship values. This rationale again speaks to the phenomenon of younger age of marriage in the military. Younger marriage ages likely reflect psychological immaturity and may result in an underdevelopment of robust relationship values. Beliefs about self, sex and intimacy, and relationship roles are seen interacting with the unique problem of military separation frequently in this population.

Alcohol use is also very common in the military (220) and was reflected as a contributing factor to increased relationship-based suicide risk. The use of alcohol was also entangled with the participants' understanding and management of their own and their partners' mental health. Again, these factors alone are known risk indicators for suicide and in this context are viewed as necessary adjuncts to the development of increased suicide risk.

Many participants outlined their thoughts about suicide, to include their understanding of when suicide is appropriate, how it could be useful, or what it means about themselves to decide to suicide. One of the most common beliefs was that suicide can serve as a means for revenge. While the development of beliefs about suicide are outside the scope of this study, they are thought to interact with the individuals' hierarchical relationship learning. The interaction between beliefs about the utility of suicide, a relationship learning history that predisposes one for suicide risk, and a romantic relationship that triggers underlying insecurities represents a template for increased relationship-based suicide risk.

Case Example

To illustrate the use of the proposed conceptual model, a brief exploration of one participant's suicide story is reviewed. The case example comes from a male individual (called "X") who was engaged at the time of his admission and interview. The case example is organized by the three categories on the face of the conceptual model:

Historical Relationship Influences, Cognitive Dissonance: Relationship Values, and Relationships Dynamics. It contains the themes from the categories of Contextual Factors and Motivation for Suicide Self-Harm throughout. This illustrates the developmental nature of X's suicide risk in regards to his relationship history and the interwoven nature of the other important factors.

Historical Relationship Influences

X started his story by describing two previous relationships that had negatively impacted his experience in his current marriage: "So before I get to the story of my wife, let me tell you about the story that really traumatized me" (*Negative Experiences in Romantic Relationships*). He discussed two relationships he had at the start of his military career that ended poorly. He spoke about how he used women and alcohol to cope with his dislike of his military career choice. He breaks in his story to discuss meeting his first girlfriend, which occurred after running away from home. X explained that his home life was chaotic, noting that he was sexually abused: "I got molested, and that continued for 2 years until I was 14. I wasn't mentally right, I was messed up sexually I guess. I knew it was wrong, and I didn't want that" (*Poor Parenting and Childhood or Adulthood Abuse*.)

Cognitive Dissonance: Relationship Values

X recounted that after moving to his first duty station and struggling with his own mental health (*Mental Health*), he met his current fiancé while in a psychiatric treatment

facility and quickly fell in love with her (*Impulsive Relationship Formation*). Shortly after their meeting however, she left the military and moved to another state for a job (*Military Separation*). X struggled in her absence: “After she left, I felt lonely again, even though I’m crazy in love with her and I know she’ll be there for me and I’ll be there for her. I just get distracted with the distance and the loneliness. I miss the touch part, the connection with something” (*Inadequate Intimacy*).

Relationship Dynamics

After explaining the difficulties he experienced, X shared that he cheated on his fiancé multiple times (*Infidelity*). He felt horrible and out of control, “I would love to explain to her, but I’m afraid she’ll leave me! I know what it’s like to be abandoned, that’s how I grew up. Even if she forgives me...I was going to wait until I got myself under control before I told her, but either way I lose because I’m just a bad person, no matter what” (*Negative Self-View*). X was conflicted because he thought his fiancé deserved to know about his infidelity, but kept it from her for fear of her leaving him (*Dishonesty*).

X’s suicide risk culminated into an attempt at this part of his story, after a woman he had slept with confronted him about his fiancé: “It finally just made me snap I guess, because I have to live with this for the rest of my life. She is the most perfect girl. But the distance...and being here I don’t feel appreciated and I don’t get any sleep because of the time difference [where fiancé lives]. It’s all building up on me and makes me not want to think, it builds up inside of me like a soda pop with a mentos bomb.”

X’s story ended with hope- he was looking forward to being administratively separated and going to live with his fiancé. His story, among others, demonstrates how

relationship history can impact the cognitions and behaviors in adult romantic relationships. X cited a history of abuse and painful early romantic relationships that echoed in his relationship with his fiancé. He developed views about how a healthy relationship should be and then suffered when he experienced dissonance in those values caused by his own behaviors as well as contextual factors. He then noted that the dynamics of his relationship kept him in a cycle where he felt helpless and guilty, which ended in a suicide attempt and subsequent hospitalization.

Overall, the qualitative analysis portion of the current study adds richness and depth to the field's understanding of the links between intimate partner relationships and suicide risk. Quantitative research alone, particularly in this specific domain, misses potentially important nuances in these connections with issues of poor measurement and assumptions about relationships that may or may not be accurate. The careful qualitative analysis of these individuals allows those who have actually experienced the depths of suicide crises to examine and inform others about the impact of intimate partner relationships.

QUANTITATIVE FINDINGS

Descriptive Sample Characteristics

A total of 55 individuals with a mean age of 25 years, primarily male and Caucasian, with a high school diploma or some college, enlisted active duty military, consisting primarily of Marines, Soldiers, and Sailors with a small percentage of Airmen participated in the study. Participants were required to be either currently in a romantic relationship or in a romantic relationship within the past 5 years. Of those entering the study, about half were currently in their first marriage. Few participants reported they had

been divorced or separated. Most participants had no children. The majority of participants reported a heterosexual orientation with about 15% reporting a bisexual orientation. The majority of participants reported they had cheated on a partner or been cheated on by a partner. About 1 out of every 10 participants reported a lifetime sexual assault experience and a lifetime physical assault experience by a romantic partner. Finally, approximately a bit over half of participants reported their romantic relationships sometimes, often, or always contributed to their thoughts about suicide.

Romantic Attachment Style, Relationship Self-Efficacy, Relationship Satisfaction, and Conflict-Induced Distress

Romantic Attachment Style

The Experiences in Close Relationships Scale, Revised was used to assess the construct of romantic attachment style. Both avoidant and anxious romantic attachment styles were measured. Overall, the sample demonstrated an average score of 3.9 ($SD = 1.6$) for anxious romantic attachment style and an average score of 2.8 ($SD = 1.8$) for avoidant romantic attachment style. These scores indicate that the dominant romantic attachment style for individuals in this sample was anxious. Sample scores for anxious romantic attachment were somewhat higher than in the general U.S. population ($M = 3.56$, $SD = 1.12$; 218), while avoidant romantic attachment were not ($M = 2.92$, $SD = 1.19$; 218). This difference may be secondary to military-specific characteristics, such as the high rate of infidelity within the military, the transient military lifestyle, or even potentially that individuals with anxious attachments are more attracted to the military. Anxious attachment in romantic relationships makes the individual more likely to be

fearful of rejection from their partner and more likely to appear overly attached or overbearing (71). The finding that anxious romantic attachment style is more common in this psychiatric inpatient sample than in the general U.S. population may have to do with the tendency of individuals with anxious romantic attachment to work harder to monitor for signs that their partner is rejecting them, which results in a higher frequency of negative emotional experiences (101). Individuals who have predominantly avoidant romantic attachments likely do not experience relationship hardships in a way that would result in their hospitalization, which is a potential explanation for this finding. Future research can examine whether those with anxious romantic attachment styles are more likely to engage in suicidal behaviors, citing relationship dynamics as a motivator.

Relationship Self-Efficacy

The Self-Efficacy in Romantic Relationships Scale was used to assess the construct of relationship self-efficacy. Overall, the sample demonstrated an average score of 72.0 ($SD = 18.6$), which indicates that individuals in this sample felt generally efficacious in terms of their relationships – i.e., they trusted themselves to be able to identify, address, and solve conflicts as they arose. Sample scores for the SERR were not meaningfully different from population norms ($M = 79$, $SD = 18$; 56), which were gathered from undergraduate students engaged in romantic relationships and were similar in age ranges. The similarities between the study sample and populations norms are interesting, given that the study sample consists of individuals who have endured a suicide crisis that in the majority of cases was related to their romantic relationships. This finding may suggest that some individuals at risk for a suicide crisis may have low

insight into their relationship functioning, believing themselves to be efficacious within their relationships perhaps as a personal value, while potentially discounting the effects of other problematic relationship variables. It is possible that it is this over-estimation of relationship self-efficacy that ultimately increases suicide risk. Further research is thus needed to understand the relationship insight associated with reports of relationship self-efficacy in this type of population. An alternate interpretation may be that those with greater self-efficacy have a tendency to externalize and blame their partner for the relational difficulties – while genuinely believing that they themselves are efficacious in terms of fully functioning as a contributing partner in the relationship.

Relationship Satisfaction

The Couples Satisfaction Index was used to assess the construct of relationship satisfaction. Overall, the sample demonstrated an average score of 105.1 ($SD = 33.0$). Normative data exists for the 16-item version of this measure (the current study used the 32-item measure, for thoroughness), where the average score was 80.9 ($SD = 13.2$), with a maximum score of 97. Relatively speaking, scores for the study sample are lower than in the normative sample of individuals within the U.S., but still above the cutoff that would suggest poor or problematic relationship satisfaction. This suggests that the individuals in this sample were generally satisfied with their relationships, which is an interesting finding given their hospitalization and report of relationship contribution to their suicide crisis. The standard deviation for this sample, however, showed notable variations in reported relationship satisfaction. This suggests that perhaps this measure of relationship satisfaction is not an adequate indicator of whether an individual has

increased relationship-based suicide risk. Another interpretation is that individuals were reluctant to report their relationships as unsatisfactory for fear of the perceived consequences of doing so (i.e., losing the relationship, admitting defeat). Individuals may have also been reporting on relationships that had already ended. Further research is needed to better understand the apparent disconnect between relationship satisfaction and suicide crisis that are at least partially related to a romantic relationship.

Conflict-Induced Distress

The Relationship Problem Scale, Modified was used to assess the construct of conflict-induced distress. Overall, the sample demonstrated an average score of 27.8 ($SD = 16.2$). Average scores on the RPS-M were less than half of the total possible distress score, with the maximum score only marginally higher. As this scale was modified to measure the construct of distress produced by conflicts rather than conflicts themselves, no normative data is available. Future research can continue to use the modified version of this scale to create a base of knowledge for this construct. Similar to the findings for relationship satisfaction, this finding is surprising given the sample's report that their relationships at least partially contributed to their suicide crises. These findings, while surprising, are in support of the qualitative findings, which highlight that there is likely no one variable that can be measured to determine an individual's relationship-based suicide risk. The measures of conflict-induced distress and relationship satisfaction capture a cross-section of an individual's relationship functioning, which may explain these somewhat counterintuitive findings. It is also possible that total distress is notable than perhaps an intense distress following particular conflicts. Further research is needed

to explore the nuances in measuring conflict-induced distress in this population. Another avenue for future research would be to explore the conflict-induced distress experienced in the moment for individuals. The measure used for this construct is retrospective, therefore allowing for the possibility that high distress has since subsided. Future research could address this with the use of momentary ecological assessment for relationship conflict.

Examination of Gender Differences (Aim 3)

Contrary to expectations, there was no evidence of gender-specific differences in romantic attachment, relationship self-efficacy, relationship satisfaction, and conflict-induced distress. The literature suggests that men are generally more negatively affected by relationship dissolution (181) and further, that they are more surprised to find that their partner is unsatisfied (8,181). However, the findings of this study may reflect the measurement of relationship variables measured *after* the identification of an issue (and psychiatric hospitalization), which may result in more even reporting of relationship variables across genders. Another interpretation of this finding is that, for individuals who have been psychiatrically hospitalized, their relationship problems that may have exhibited gender differences have become less critical. It is possible that other crises have become the priority, such as the effect of their hospitalization on their job and future, or the need for mental health care, rather than potentially gender-specific experiences of relationship conflicts. This finding may also have been affected by the study's asking the individuals to think about their relationship in relation to their suicide crisis. Literature suggests that women may have cited many of these relationship variables *without being prompted* (97) when describing their desire to die by suicide, whereas men may not. Yet,

when specifically asked, the men in this study reported similar experiences. Finally, the sample measured was a military sample. As the military is comprised mainly of men and careers that are traditionally chosen by men, the perspective of the women in the current study may differ from civilian women secondary to the dominant culture. Traditionally gendered perspectives may also differ among service members secondary to motivation for entering military service or enculturation within the military way of life.

Clinically, this is an interesting finding as the study sample, which included both men and women service members on Active Duty status, were similar rather than different in their romantic attachment, relationship self-efficacy, relationship satisfaction, and conflict-induced distress. The non-significant statistical findings highlight that providers in the community who deliver couples therapy or psychotherapies targeting intimate partner relationships may not necessarily be able to rely on common conceptions about gender roles within the military. However, it is important to highlight that this finding reflects not only a military sample, but individuals who have been psychiatrically hospitalized and potentially quite homogenous in psychiatric presentation. It is possible that a healthy military sample maintains gender differences for these variables, in which case, the detection of similarities across genders may be an indicator for increased relationship-based suicide risk- that is- an individual who differs from the expected experiences in a relationship may need further assessment when presenting for care. This recommendation requires further investigation given that these similarities were discovered within a highly vulnerable sample and in fact, may not accurately represent non-clinical military samples.

Associations Among Romantic Attachment Style, Relationship Self-Efficacy, Relationship Satisfaction, Conflict-Induced Distress, and Worst Lifetime Suicide Ideation Severity (Aim 4)

Contrary to expectations, higher scores on avoidant romantic attachment, lower scores on relationship self-efficacy, lower scores on relationship satisfaction, and higher scores on conflict induced distress were not associated with worst lifetime suicide ideation severity scores. Adequate statistical power was not established; therefore larger sample sizes are required in the future to more robustly examine this research question.⁹

Given that the only potentially significant association with worst lifetime suicide ideation severity was anxious romantic attachment, an understanding of this trend in relation to the scientific literature is useful; however, it should be noted that the entire regression model was found to be non-significant and therefore, any trends need to be interpreted with caution. Research has demonstrated that individuals who experience an anxious romantic attachment are at higher risk for suicide than individuals with avoidant or secure attachment styles (101, 103). While individuals with anxious and avoidant attachment styles are overall more likely to have relationship problems than those with secure attachment styles (163), the trend of these findings may suggest that individuals with anxious romantic attachment styles are potentially more affected by problems within their relationship. Individuals with an avoidant romantic attachment are less emotionally and physically attached to their partners (163), regulate their negative emotions with avoidance (98), and exhibit overall less commitment in romantic relationships (82). On

⁹ Currently, data collection for this study is ongoing, outside of the scope of this dissertation study; therefore, this aim can be more carefully examined in the future with a larger sample size, and more adequate power.

the contrary, individuals with an anxious attachment style typically seek commitment in the form of long-term relationships (139) yet have difficulty allowing themselves to feel comfortable in a commitment- appearing ambivalent- for the fear that they will be hurt or abandoned (82, 101). This presentation is complicated by their tendency to be hypersensitive to threats to the relationship (101), which can cause problems due to misinterpretations of neutral stimuli (101). Behaviors consistent with an anxious attachment style are similar to those exhibited by individuals with Borderline Personality Disorder, a type of pathology where chronic suicidality is common (224). Therefore, further research into the associations between personality pathology, attachment formation, and intimate partner relationship functioning would advance understanding of this finding.

While individuals with an anxious attachment style are more likely to experience conflict within their relationships (101), a measure of conflict and related distress in this sample was not significantly associated with suicide risk severity. From the qualitative analysis, this trend appears to reflect the significance of the developmental environment in learning the functions and patterns one can expect from relationships. Current literature suggests that attachment begins to form from infancy, wherein an individual learns what to expect from others in terms of getting their needs met (2). As in the qualitative analysis, the effect of attachment is apparent throughout the participants' stories of their increased suicide risk. Such attachment injuries may potentially contribute to lower endorsement of conflict induced distress: perhaps they were less distressed because their attachment style predisposed them to expect hurtful and confusing interactions. However, one must keep in mind that the current population was rather

homogenous, which may account for the lack of variability among reports of conflict-induced distress. In keeping with the potential for similarities with personality pathology, it is possible that a retrospective account of these variables is not accurately capturing emotion dysregulation even when it is present and problematic.

Exploratory Moderation Analyses Pertaining to Romantic Attachment and Relationship Self-Efficacy

The association between conflict-induced distress and worst lifetime suicide ideation severity was explored in the context of two possible moderators: (1) anxious romantic attachment, and (2) relationship self-efficacy. Neither one served as a moderator. Therefore, hypotheses 5a and 5b were not supported. It is important to note that these analyses were underpowered and therefore, the findings presented here must be interpreted with caution and replicated with larger sample sizes. This finding suggests that the relationship between conflict-induced distress and suicide ideation severity are not significantly related, though this aim was underpowered. Such a finding is in contrast to the current literature, which suggests that conflict within relationships should ostensibly lead to a relationship dissolution and eventually increased suicide risk (4, 77, 190). The lack of observed significance here may be due to inadequate power, inadequate measurement of conflict-induced distress, and/or the homogeneity across the sample in relation to both factors of interest. Overall, the trajectory between intimate partner relationship conflict and increased suicide risk appears complex and may not be measured reliably in the context of a study relying purely on retrospective recall. Data collection methods such as momentary ecological assessment may provide opportunities

to more closely examine the link between conflict-induced distress and suicide ideation. The importance of this aim is thus to remind clinicians and researchers that development of suicide risk is not linear and rather fluid – distress felt at the time of the conflict may be quite differently captured by an instrument administered weeks or months after the conflict.

Had this mixed-methods study been conducted in the traditional method, with the qualitative analyses completed first and informing the quantitative analysis, Aim 5 might have been more impactful. From the qualitative analysis and Aim 4, findings suggested that attachment style was an important precipitating factor for suicide crisis. Qualitative analysis may therefore have informed Aim 5 such that the relationship between attachment style and suicide ideation severity was the base relationship, hypothesized to be moderated by other factors, such as communication or infidelity.

IMPLICATIONS OF THE CURRENT STUDY

Future Research Implications

The results of the current study have clear implications for future research. First and foremost, the results of this study highlight that the development of suicide risk occurs across the lifespan, beginning in childhood with the formation of attachment style. Future research in the field of suicidology should therefore focus on further clarifying and analyzing the effects of biopsychosocial vulnerabilities – for example, longstanding individual traits and how they interact with life experiences and the environment to increase suicide risk. This implication is particularly poignant for service members, as a majority of service members have intimate partner relationships and careers that provide life experiences that are different from civilians and may interact with individual traits in

predictable ways. The concept of attachment-related risk also has implications for other types of relationships an individual might experience, such as relationships with their command or other service members.

Using the proposed conceptual model presented in this chapter, future researchers are encouraged to identify and to describe individual and dyadic resilience factors that prevent the progression of suicide risk development. Another way to conceptualize a model is to understand what a healthy intimate partner relationship is expected to look like and in what ways do relationships of individuals at elevated suicide risk depart from those with adaptive relationships. Continued research is also needed in non-clinical and non-suicidal samples of military service members to determine what factors or traits differentiate service members with and without psychopathology and suicide risk for instance. Along those lines, the relationship demographics results indicated that though the majority of participants noted that their romantic relationship contributed to their suicide crisis, 46% indicated that it did not. Future research can examine the differences between individuals who do and do not associate their romantic relationship with their suicide crisis and further, examine the narratives of those who reported that their relationship was helpful in their time of crisis.

Finally, future research should focus on expanding the current findings to other important populations. The findings of the current study are applicable in a military sample, however there may be important differences in a civilian sample or a sample consisting of primarily individuals identifying as sexual minorities. As is common in the military, the current sample was majority junior enlisted White males. Future research into this topic would benefit from an understanding of minority experiences that could

provide nuance to the proposed conceptual model, including women, officers, senior enlisted, people of color, or strictly dependents. Future research should also consider including the participants' partner to uncover a better understanding of the dyadic nature of relationships that increase suicide risk. Further, this dissertation study used a sample of individuals that had similar beliefs about suicide that were likely influenced by their previous experiences. Because the current sample were hospitalized for a suicide-related event and measured on suicide ideation severity, it is possible that there are important differences in the development of risk between this population and a population limited by only attempts, lethality of attempt, or death.

Clinical Implications

The most commonly observed themes were reports of inadequate intimacy, impulsive relationship formation, experiences with infidelity, and the overall stress of military separation. Retaliation was reported as a single relationship-related motivational factor for suicidal self-directed violence. There were no gender differences for romantic attachment style, relationship self-efficacy, relationship satisfaction, and conflict-induced distress.

The most salient clinical implication of the current study is that providers should constantly and collaboratively explore ways in which intimate partner relationships, either through individual and/or dyadic characteristics, contribute to clients' suicide risk. It is helpful not to make assumptions – for instance, erroneously thinking that men and women would be different in their experiences. Asking, rather than assuming, is a recommended clinical strategy. Moreover, this type of exploration must take into account and incorporate longitudinal developmental characteristics that have influenced

relationship values, core beliefs, and dynamics over time. More specifically, issues related to inadequate intimacy, impulsive relationship formation, experiences with infidelity, and the overall stress of military separation should be continually monitored through the course of both individual and couples psychotherapy with suicidal individuals. Additionally, the conceptual model as a whole could be used to collaboratively review the pertinent themes in clients' lives to help them understand their own development of risk. Clients who understand their personal applications to the conceptual model can be empowered to review their own relationship patterns and build insight to address relationship difficulties effectively with their partner. Clinicians might encourage the client to think in terms of their relationship history and patterns by actively using the proposed conceptual model in their clinical conceptualizations of the patient.

In addressing suicide risk for individuals who have relationship problems, the current study supported the assessment and understanding of instances within the individual's life and romantic relationships that were formative to them and might be considered relationship traumas. Further, the clinician's risk assessment may be enhanced by an understanding of the individual's romantic attachment style. The current study showed a trend towards anxious romantic attachment style being an important element in suicide ideation severity, therefore clinicians might take note of the presence of clinginess, rejection sensitivity, and fear of abandonment when considering relationship-based risk. These key events and traits, which may be salient to individuals at increased risk, may enhance the clinician's ability to make an accurate risk assessment and further guide treatment planning. Moreover, the findings of this study suggested that negative relationship learning histories and potentially anxious attachment are key areas for

intervention for these individuals. With the knowledge that these individuals may present similar to those with Borderline Personality Disorder, using the domains of Dialectical Behavior Therapy (DBT), namely skills training and psychoeducation on communication and validation, would be useful to include in individual and couples' treatment planning.

In the assessment, management, and treatment of suicidality, providers can engage clients in understanding personal warning signs and maladaptive coping behaviors activated by one's intimate partner relationships or one's perception of these relationships and their shortcomings as well as conflicts via the proposed conceptual model. Clinicians who might have previously only listed risk and protective factors for suicide can use the proposed model to graphically represent the client's hierarchical increase in suicide risk for both themselves and the client. Clients can then be empowered to make value-focused choices, to move in the direction of change, and to even increase their desire for living (rather than dying) based on this understanding. Clients can also learn to make adaptive decisions about intimate partner relationships in their future and practice communication strategies, other than suicidal behaviors (particularly in relation to retaliatory motivations for suicide), to effectively convey their distress and psychological pain. Providers can also incorporate values-based work into clients' treatment regarding intimate partner relationships that will serve as a protective factor for future suicide risk.

Additionally, the current study emphasizes the importance of understanding the clients' biopsychosocial vulnerabilities and relationship values as well as dynamics in the context of upcoming military-specific stressors. The organization of the proposed conceptual model outlines that these factors are affected by one another and precede

suicide risk. Many of the themes addressed by the participants were related to their biological predispositions, such as alcohol use, their psychological makeup, such as mental health conditions and attachment style, and their social worlds, including their relationship learning history and their ability to find social support. Helping clients prepare for a deployment, a training exercise, retirement, or another military transition can and should include an understanding of how the event will affect the individual and their relationships. Knowing that anxious romantic attachment style is associated with suicide ideation severity, providers may choose to process issues related to perceived loss, abandonment, and rejection with clients especially during these sensitive and stressful military-related transitions. Preventative strategies and psychoeducation can prove beneficial in managing military-specific stressors. In terms of prevention, pre-marital counseling may be a solid strategy for strengthening the marriage of service members from the very start and some type of messaging about this issue may be helpful for providers and policy makers to consider, noting however that the impulsiveness of relationship formations within the military will present a challenge to this endeavor.

This study also highlights the potential usefulness of having clinicians who work with service members be trained in and able to offer couples therapy. In addition to focusing on individual therapy and psychoeducation, military couples may benefit from clinics that are able to offer couples therapy to work on any issues in the relationship as a couple in service of suicide prevention as well as mission readiness and overall service member health and wellness.

Finally, a findings from this study related to the qualitative analysis was the therapeutic value of completing the semi-structured interview. Observations of

participants during and after the interviews by both the Author and the psychiatric inpatient unit staff were that completing the study encounter was cathartic and helped participants organize and review their suicide crises in a helpful way. This is a useful observation, particularly for clinicians who engage in milieu therapy and brief intervention work, who may find benefit in helping individuals organize their crises for themselves through semi-structured review of the basic psychological domains of understanding human behavior (thoughts, emotions, behaviors) in a narrative format.

Military Policy Implications

The results of the current study have implications for the care and treatment of service members, who commit themselves completely to the service of the mission. Because their commitment allows for the development of potentially unhealthy intimate partner relationships, the current study can inform military practice to help foster healthy and effective relationship skills for service members that simultaneously may decrease eventual suicide risk.

The demographic findings of this sample of psychiatric inpatients suggests that relationship-based suicide risk is especially salient among young service members. An avenue for intervention would thus be to foster healthy relationship education while service members are in training status. Basic trainings for military branches are designed to transform recruits from civilians to service members. Part of this transition may be a change in perspective of how relationships are viewed, from commitments based on love to commitments based on avoiding loneliness, gaining financial benefits, or exercising independence. Understanding how the transition from civilian to military life affects an individual's view on romantic relationships can help young service members who may

have a predisposition for developing relationship-based suicide risk make healthier and more insightful relationship choices. Continuing relationship education may also target sexual health, infidelity, and relationship communication skills. Such resources are certainly available for service members who identify these domains as a problem and are willing to seek help. However, because mental health stigma exists (210) and military stressors on relationships are widespread, incorporating these concepts into unit trainings would provide the base knowledge to all service members and serve as a bridge to care for those who may be experiencing an increase in suicide risk.

Another potential implication of the current study is the ability of the military to offer a service similar to compassionate reassignments. Compassionate reassignments within the military are offered to service members that experience extreme hardships that necessitate their physical presence somewhere other than their established place of duty. A potential aid in lowering suicide risk would be to consider compassionate reassignments for individuals who are separated from their partners. Certainly, there would need to be limits placed on this program to avoid service members purposely requesting such a service to shirk responsibilities, but for individuals at risk for suicide, compassionate reassignment may be a solution when coupled with psychiatric care. A potential avenue for implementation might be in the case of a service member who is being medically separated or engaging in full-time treatment (such as a service member assigned to a Warrior Transition Unit) who is geographically separated from their partner. In that case, the individual is focusing on bettering their overall wellness and an argument for their colocation with their romantic partner would be valid.

LIMITATIONS AND STRENGTHS

The current study was conducted under the restraints of a doctoral dissertation timeline and as such has limitations that could not be avoided. Due to lengthy Institutional Review Board processes at the WRNMMC hospital and at USUHS, the study began enrollment later than originally expected. Therefore, first and foremost, the study included only 55 total participants. This smaller than expected sample size resulted in insufficient statistical power for several of the quantitative analyses. Future studies interested in working with high-risk populations such as psychiatric inpatients would benefit from starting their IRB proposal process quite early, especially if under time constraints for the completion of a project. Second, the dissertation timeline and the pressures associated with recruitment did not allow for inclusion of a comparison group. Helpful comparison groups would have included participants with psychiatric hospitalizations due to other reasons than a recent suicide-related crisis or psychiatric outpatients with no history of lifetime suicide ideation and attempts. Third, the study did not include the participants' partners, which would have enhanced understanding of communication issues, views on notable events, and understanding of suicide risk development. Fourth, assessments were conducted primarily through self-report instruments; future studies can benefit from using different methods of data collection such as momentary ecological assessment or observational methods to capture relational dynamics, for instance. Fifth, suicide ideation severity was measured for the worst lifetime period of suicide ideation. This is a limitation, as individuals may have reported on a period of suicide ideation that was worse than their most recent crises, and potentially associated with other or no relationships. This measurement was chosen to

allow the measure to remain intact, and with the rationale that worst lifetime suicide ideation might represent the high end of the individual's range of suicide risk, regardless of association with a romantic relationship. Future research may explore the endeavor of suicide risk immediately associated with romantic relationships, however that specific sample was problematic for the current study due to time restraints. Another limitation related to the sample collected is that individuals included for this study had various relationship statuses. This resulted in a final sample that included individuals who had recently ended relationships, who were still married, and who were in the process of ending their relationships. Future studies might include only one type of relationship status for more pointed results. Again, the time constraints of this dissertation project did not allow for that level of specificity in sample collection.

Furthermore, the study was also limited in its design, which employed the simultaneous completion of qualitative and quantitative analyses. Ideally, the qualitative analyses would have been completed prior to the quantitative portion of the study so as to inform the study's hypotheses and associated data analytic plan. The study captured a highly specified sample of psychiatrically hospitalized military service members and dependents. It was therefore unable to discriminate which factors were generalizable to the civilian public, the military as a whole, or to individuals experiencing varying ranges of suicidality. One may argue that the study sample was rather homogenous in nature. The study therefore potentially fails to capture a breadth of diversity that represents the experience of suicidal individuals in the military writ large. Of course, it is also possible that relationship dynamics and difficulties among those who die by suicide are quite

different from those who attempt suicide or who think about suicide without ever transitioning to suicidal behaviors.

Despite the current study's limitations, a number of notable strengths must be highlighted. This is the first study to closely and to directly examine the possible associations between intimate partner relationships and suicide risk within a military sample – more specifically, a high risk psychiatric inpatient sample at the nation's largest military treatment setting. The study provides a foundation for a new avenue of suicide prevention research within the military. Its mixed methods approach emphasizes and places value on both qualitative and quantitative strategies for information processing. Further, the study attempts to understand not only what factors are important contributors to suicide risk, but why and how they develop. The qualitative approach empowered the study participants in sharing their narratives and advancing our formulation of a conceptual model to describe relationship-based suicide risk, which can be used to guide future research and clinical practice.

Another strength of the current study is the active duty and retired service members and their dependents who comprised the sample, which allowed the study to capture current issues experienced in the military as opposed to Veterans who may be further removed from service. It also captured information from participants who were proximal to their experience of a suicide crisis. Participants completed both qualitative and quantitative measures, which provided insight into the phenomenon of suicide and how accurately it is understood and measured with current instruments. It is important to note that the data collection is ongoing under the supervision of the primary mentor for this dissertation. The additional data can be further analyzed to bolster the findings

presented in this dissertation for future scientific dissemination. In summary, despite limitations, the current study is a significant contribution to military mental health and suicidology literature.

CONCLUSION

Suicide deaths, attempts, and ideation within the military remain a notable public health challenge, presenting an unpredictable threat to the health and well-being of the nation's armed forces. This dissertation involved original data collection within the largest military treatment setting in our nation. Its findings make a unique and valuable contribution to the limited body of literature on intimate partner relationships and suicide risk by advancing our understanding of the complex interactions between individual and dyadic characteristics in the trajectory towards suicidal crises.

APPENDIX A: SEMI-STRUCTURED QUALITATIVE INTERVIEW

Intimate Partner Relationship and Suicide Risk Interview¹⁰

Semi-Structured Interview

Guidance Box 1 for Interviewer

- **Purpose:** This semi-structured interview elicits information regarding connections between recent romantic relationships (over the past 5 years) and suicide risk.
- **Duration:** Interviews will take approximately an hour to complete. Please do not rush the participant, as the interview may take longer than an hour depending on multiple factors (e.g., participant fatigue, complexity of narrative). Provide break options.
- **Reminders:** Throughout the interview, thank the participant for his or her willingness to share information but at the same time, make sure that the participant understands that he or she has the option to skip one or more questions.

Interviewer Script:

Thank you again for your willingness to participate in this research study. This interview will take approximately one hour and will be audio-recorded for future transcription. Your responses to this interview will be kept confidential. This means that any names, places, or other identifiable information we talk about will be redacted, or de-identified, when the written transcripts are prepared. Interviews will be transcribed only by trained research personnel approved to work on this study.

¹⁰ For questions in reference to this interview, please contact CPT Hannah Martinez at hannah.r.martinez4.mil@mail.mil. Please note that this measure was developed as part of a dissertation project completed at Uniformed Services University of the Health Sciences, Department of Medical and Clinical Psychology, Suicide Care, Prevention, and Research Initiative (Director: Dr. Marjan G. Holloway). This measure is not copyrighted. However, permission for use must be obtained from CPT Martinez.

Interviewer Script:

As described during the consenting process, your research participation is voluntary. You may choose to stop at any time or to only answer the questions that you would like to answer. If you find any aspect of this interview upsetting, please let me know if you wish to stop altogether or if you wish to stop, take a break, and to resume again with the questions.

Now that I have provided you with an introduction, I will begin the audio-recording. Any questions at this point, before we begin?

Guidance Box 2 for Interviewer

▪ **Recording Checklist:**

- ☐ Start Recorder
- ☐ Note Your Name
- ☐ Note Participant ID
- ☐ Note Start Time for Interview
- ☐ Note Month and Year of Interview

Example: This is Beth Johnson. The participant ID is 201. We are starting the interview at 1pm. The month of the interview is July. The year of the interview is 2018.

Interviewer Script:

We frequently hear that problems with a romantic relationship such as a tough breakup may play a role in suicide risk. However, we don't yet have a solid understanding of why and how romantic relationships may contribute to one's wish to die by suicide. With your voice, and others like you, we can better understand this important topic.

Interviewer Script:

For this interview, we would like to specifically focus on your romantic relationships over the past 5 years. Of course, it is possible that you have not had a romantic relationship within the past 5 years, or that your romantic relationships during this time did not relate to your wish to die by suicide. However, please keep an open stance and do your best to answer each question.

To begin with, I need to collect some information about your romantic relationship history over the past 5 years. Let's start and review this form together.

Guidance Box 3 for Interviewer

- Present the **Romantic Relationship History and Suicide Risk Chart**:
 - ☐ Orient the participant to the structure of the form
 - ☐ Guide the participant through the completion of the form, items 1-10
 - ☐ For each of the items 5-10, if marked 'Yes', please ask the following:
"Tell me more."

Romantic Relationship History and Suicide Risk Chart

Instructions: The purpose of this chart is to map out one's recent history of romantic relationships, over the past 5 years. This understanding will inform and guide the semi-structured interview.

(1) Relationship Identifier Person X: Initials	Example XY	Person A	Person B	Person C	Person D	Person E
(2) Duration: Months (Current or Past)	6 Current					
(3) Type: Spouse, Partner, Other	Partner					
(4) Relationship Satisfaction 1=Very Dissatisfied 2=Dissatisfied 3=Unsure 4=Satisfied 5=Very Satisfied	2					
(5) Did you think about suicide during this relationship? Yes or No	Yes					
(6) Did you think about suicide when this relationship came to an end? Yes or No	Yes					
(7) Did this relationship contribute to your suicide thoughts? Yes or No	Yes					
(8) Did you attempt suicide during this relationship? Yes or No	No					
(9) Did you attempt suicide when this relationship came to an end? Yes or No	Yes					
(10) Did this relationship contribute to your suicide attempt? Yes or No	Yes					

Romantic Relationship History and Suicide Risk Chart

Instructions: The purpose of this chart is to map out one's recent history of romantic relationships, over the past 5 years. This understanding will inform and guide the semi-structured interview.

(1) Relationship Identifier Person X: Initials	Example XY	Person F	Person G	Person H	Person I	Person J
(2) Duration: Months (Current or Past)	6 Current					
(3) Type: Spouse, Partner, Other	Partner					
(4) Relationship Satisfaction 1=Very Dissatisfied						

2=Dissatisfied 3=Unsure 4=Satisfied 5=Very Satisfied	2					
(5) Did you think about suicide during this relationship? Yes or No	Yes					
(6) Did you think about suicide when this relationship came to an end? Yes or No	Yes					
(7) Did this relationship <u>contribute</u> to your suicide thoughts? Yes or No	Yes					
(8) Did you attempt suicide during this relationship? Yes or No	No					
(9) Did you attempt suicide when this relationship came to an end? Yes or No	Yes					
(10) Did this relationship <u>contribute</u> to your suicide attempt? Yes or No	Yes					

(11) Over the past 5 years, which of the relationships that we just discussed had the strongest impact on your wish to die by suicide?

- ☐ Person A
- ☐ Person B
- ☐ Person C
- ☐ Person D
- ☐ Person E
- ☐ Person F
- ☐ Person G
- ☐ Person H
- ☐ Person I
- ☐ Person J

If more than 10, only record the most impactful relationships.

(12) Over the course of your entire life, have you experienced another romantic relationship that comparatively speaking, had an even stronger impact on your wish to die by suicide – so much so that you actually attempted to kill yourself?

- ☐ Yes
- ☐ No

Guidance Box 4 for Interviewer

- If none of the relationships discussed (within past 5 years and lifetime) have had an impact on the wish to die by suicide, skip to question x.
- If at least one of the relationships discussed (within the past 5 years) has had an impact on the participant's wish to die by suicide (i.e, a response of 'Yes' to item 11), focus on the relationship with the strongest impact by asking questions x-y.
- If the participant responds 'Yes' to item 12, make sure to learn about this relationship as well, by asking questions x-y.

Interviewer Script:

The following questions pertain to your relationship with Person ____ since this had the strongest impact on your wish to die by suicide, over the past 5 years.

HOW DID THE RELATIONSHIP IMPACT THE PARTICIPANT'S WISH TO DIE BY SUICIDE?

(13) Why did this relationship have the strongest impact on your wish to die by suicide? Tell me in your own words.

{Allow the participant to respond without interrupting.}

(14) What was the most stressful aspect of this relationship that contributed to your wish to die by suicide?

{Allow the participant to respond without interrupting.}

(15) Which of the following stressors in your relationship with Person ____ contribute to your suicide risk?

{Read each one and check all that apply.}

- ☐ Financial
- ☐ Problems in sexual relationship
- ☐ Children
- ☐ Infidelity
- ☐ Lack of affection
- ☐ Problems with work-life balance
- ☐ Military career
- ☐ Deployment
- ☐ Use of pornography
- ☐ Substance use
- ☐ Mental illness of one or both partners
- ☐ Physical illness of one or both partners
- ☐ Trust and safety
- ☐ Constant fighting
- ☐ Exposure to trauma within this relationship
- ☐ Exposure to trauma outside of this relationship
- ☐ Other (specify) _____

Interviewer Script:

The following questions pertain to your relationship with Person ____ since this had the strongest impact on your wish to die by suicide, over the past 5 years.

HOW DID THE PARTNER'S ACTIONS IMPACT THE PARTICIPANT'S WISH TO DIE BY SUICIDE?

(16) How [do/did] Person ____'s actions in this relationship contribute to your wish to die by suicide?"

{Allow the participant to respond without interrupting.}

(17) Which of the following actions by Person ____, in this relationship, [contribute/contributed] to your wish to die by suicide?

{Read each one and check all that apply.}

- ☐ Verbal abuse
- ☐ Physical abuse
- ☐ Sexual abuse
- ☐ Cheating
- ☐ Lying
- ☐ Apathy – no emotional engagement
- ☐ Withholding something important (e.g., visitation with children, money)
- ☐ Making important decisions without you
- ☐ Substance abuse and/or dependence
- ☐ Impulsive behaviors (e.g., driving while intoxicated, gambling)
- ☐ Shame-inducing action of some type
- ☐ Turning others against you (e.g., friends, family, children)
- ☐ Other (specify) _____

Interviewer Script:

The following questions pertain to your relationship with Person ____ since this had the strongest impact on your wish to die by suicide, over the past 5 years.

HOW DID THE PARTICIPANT'S ACTIONS IMPACT HIS OR HER OWN WISH TO DIE BY SUICIDE?

(18) How [do/did] your actions in this relationship contribute to your wish to die by suicide?"

{Allow the participant to respond without interrupting.}

(19) Which of your following actions, in this relationship, [contribute/contributed] to your wish to die by suicide?

{Read each one and check all that apply.}

- ☐ Mistreating my partner
- ☐ Cheating or considering cheating on my partner
- ☐ Lying
- ☐ Apathy – no emotional engagement
- ☐ Withholding something important (e.g., visitation with children, money)
- ☐ Making important decisions without you
- ☐ Substance abuse and/or dependence
- ☐ Impulsive behaviors (e.g., driving while intoxicated, gambling)
- ☐ Shame-inducing action of some type

- ☐ Turning others against you (e.g., friends, family, children)
- ☐ Doing something horrible that you can't take back
- ☐ Using communication about suicide as a way to express my pain and my unmet needs
- ☐ Other (specify) _____

Interviewer Script:

The following questions pertain to your relationship with Person ____ since this had the strongest impact on your wish to die by suicide, over the past 5 years.

HOW DID THE PARTICIPANT'S THOUGHTS OR PERCEPTIONS ABOUT THE RELATIONSHIP IMPACT HIS OR HER OWN WISH TO DIE BY SUICIDE?

(20) How [do/did] your thoughts or perceptions about your relationship with Person ____ contribute to your wish to die by suicide?"

{Allow the participant to respond without interrupting.}

(21) Which of your following thoughts or perceptions, in this relationship, [contribute/contributed] to your wish to die by suicide?

{Read each one and check all that apply.}

- ☐ My partner would be better off with me.
- ☐ My partner does not love me anymore.
- ☐ I need to show how much I truly hurt.
- ☐ I am so alone in this relationship.
- ☐ This relationship is a failure.
- ☐ There is no future in this relationship.
- ☐ I have been betrayed and that's unbearable.
- ☐ I have been abandoned.
- ☐ If this relationship ends, my life is ruined.
- ☐ I will never find another person to love or another person to love me.
- ☐ I can't handle this anymore – the pain must end.
- ☐ I am helpless – nothing seems to make this better.
- ☐ I am under so much pressure that I can't breathe.
- ☐ I hate myself in this relationship.
- ☐ I hate my partner in this relationship.
- ☐ I have failed.
- ☐ Other (specify) _____

Interviewer Script:

The following questions pertain to your relationship with Person ____ since this had the strongest impact on your wish to die by suicide, over the past 5 years.

HOW DID THE PARTICIPANT'S FEELINGS ABOUT THE RELATIONSHIP IMPACT HIS OR HER OWN WISH TO DIE BY SUICIDE?

(22) How [do/did] your feelings or emotions about your relationship with Person ____ contribute to your wish to die by suicide?"

{Allow the participant to respond without interrupting.}

(23) Which of your following feelings or emotions, in this relationship, [contribute/contributed] to your wish to die by suicide?

{Read each one and check all that apply.}

- ☐ Anger
- ☐ Sadness
- ☐ Hopeless
- ☐ Guilt
- ☐ Resentment
- ☐ Abandoned
- ☐ Rejected
- ☐ Helpless
- ☐ Desperate
- ☐ Trapped
- ☐ Controlled
- ☐ Hatred
- ☐ Anxiety
- ☐ Worry
- ☐ Jealousy
- ☐ Vengeful
- ☐ Other (specify) _____

Interviewer Script:

(24) You told me earlier that over the course of your entire life, you experienced another romantic relationship that comparatively speaking, had an even stronger impact on your wish to die by suicide – so much so that you actually attempted to kill yourself? Can you briefly tell me about why this relationship had such a strong impact on your suicide risk? In your response, please consider everything we've discussed thus far.

{Allow the participant to respond without interrupting.}

(25) Overall, what do you believe is the most important quality in a romantic relationship? Please briefly explain.

{Allow the participant to respond without interrupting.}

(26) On a scale of 1 to 5, how frequently [does/did] your relationship with Person ____ measure up on this quality or standard?

- ☐ Never

- ☐ Rarely
- ☐ Sometimes
- ☐ Often
- ☐ Always

Ending the Interview:

On behalf of our entire research team, I wanted to thank you for your time and participation. Given your valuable input, we plan to develop therapy approaches to help individuals such as yourself, overcome relationship stressors and maximize their wish to live. Given that this is a research study, we do not provide any treatments for individuals and/or couples but we encourage you to discuss these needs with your treatment team as these services are available and can be helpful.

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