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Investigating Identity and Social Support Among Veterans Transitioning to Civilian Life: A Mixed Methods Study

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Abstract

Eriksonian perspectives on identity development assert that identity integration, or a sense of coherence and continuity of the self, is a fundamental prerequisite for psychological well-being (Erikson, 1968; Syed & McLean, 2016; van Hoof & Raaijmakers, 2003). However, the overwhelming majority of research and theory on identity integration focuses only on adolescents and young adults under age 30 (e.g., Crocetti, Beyers, & Cok, 2016; Marcia, 1966; Schwartz et al., 2015; Sedikides, Wildschut, & Grouzet, 2018). Research on identity development in adulthood is lacking, and relatively little is known about how identity adjusts to changes later in life. The purpose of the present study was to investigate identity disruption as a construct for conceptualizing identity change in adulthood, by a) describing and operationalizing identity disruption, b) examining its relations with psychosocial outcomes relevant to veterans' adjustment, and c) determining whether any associations between identity disruption and outcomes of interest persist when controlling for participants' expressed mental-health concerns and context changes. Taking a mixed-methods approach, I used data from an expressive writing intervention conducted with veterans reintegrating back into civilian life. At baseline, three months, and six months after enrolling in the study, 244 veterans completed measures of social support, PTSD symptom severity, satisfaction with life, and reintegration difficulty. They also responded to an open-ended expressive writing prompt four times within the ten days following their baseline measurement. The qualitative data were coded using thematic analysis methods (Braun & Clarke, 2006), and codes were used to generate quantitative variables capturing identity disruption, context

change and continuity, and expressed mental health concerns, among other variables. These variables were then used as predictors in latent growth curve models to test for differences in social support and mental-health trajectories for individuals who reported identity disruption versus those did not. Qualitative analysis revealed four types of identity disruption: feelings of loss of meaning and purpose; disconnection between one's past, present, and future selves; role dysfunction; and loss of self-worth. Veterans reporting identity disruption were younger on average (M = 37.31) than those not reporting identity disruption (M = 40.24). Quantitative analyses did not support the hypothesis that identity disruption would result in poorer social support and mental-health outcomes. Rather, positive and negative context changes, positive context continuity, and expressed mental-health concerns were significantly associated with mental-health outcomes and social-support trajectories. Post-hoc analyses suggested that identity disruption was significantly associated with "lack of structure," a dimension of context change capturing broad cultural differences related to a lack of structure and predictability in civilian compared to military life. Recommendations for future research on the construct of identity disruption are discussed, including recommendations to develop a reliable quantitative measure of identity disruption, and to design studies that measure identity disruption before, during, and after the disruptive event in order to test the causal relations among life events, identity disruption, and psychosocial outcomes.

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Introduction

Identity can be conceptualized broadly as the sense of self: the roles, traits, goals, values, beliefs, and experiences that add up to create an individual's unique place in the world (Schwartz, Luyckx, & Crocetti, 2015, Syed, DeYoung, & Tiberius, 2018; Syed & McLean, 2016). Eriksonian perspectives on identity development assert that identity integration, or a sense of coherence and continuity of the self, is a fundamental prerequisite for psychological well-being (Erikson, 1968; Syed & McLean, 2016; Van Hoof & Raaijmakers, 2003). Erikson's theory was informed by his early clinical work with veterans of World War II reintegrating into civilian life (Erikson, 1946). As a clinician working in the 1940's and 50's, many of his clients were veterans returning from combat. He found that many struggled with reconciling their pre-war and post-war selves. Veterans who could not knit those parts of themselves back together tended to experience subsequent problems reintegrating back into their work and family lives.

Building on that foundation, more recent research on temporal identity integration – a specific aspect of identity integration capturing the degree to which one's past, present, and future selves are connected and coherent – demonstrates that temporal integration is associated with well-being and positive development (Benish-Weisman, 2009; McAdams, 2013; Mello, Finan, & Worrell, 2013; Oyserman & Destin, 2010). In contrast, failing to develop a temporally integrated identity is associated with negative psychological consequences, including difficulty making progress in therapy (Adler, 2012), depression (Baerger & McAdams, 1999), and increased risk of suicidality (Chandler, Lalonde, Sokol, & Hallett, 2003).

However, the overwhelming majority of research and theory on identity integration focuses only on adolescents and young adults under age 30 (e.g., Crocetti, Beyers, & Cok, 2016; Marcia, 1966; Schwartz et al., 2015; Sedikides, Wildschut, & Grouzet, 2018; though see Marcia, 2002, for an exception). Research on identity development in adulthood is lacking, and relatively little is known about how identity adjusts to changes later in life. Although Erikson's theory was developed by observing adults whose existing identities had been disrupted, most modern research in this field focuses on how identities are formed in youth, rather than on how identities weather the challenges of adulthood. Consequently, the experience of identity disruption that Erikson observed in veterans has been neglected in the empirical and theoretical literature since his time (Syed & McLean, 2016).

The purpose of the present study is to re-examine the construct of identity disruption, using modern qualitative and quantitative methods to thoroughly describe and operationalize identity disruption, and to examine its relations with psychosocial outcomes relevant to veterans' adjustment, including social support, post-traumatic stress disorder (PTSD) symptomatology, satisfaction with life, and reintegration difficulty. Below, I provide a brief review of relevant literature on identity development, social support, and veterans' mental-health concerns as background to the present study.

Identity Development and Major Life Transitions

The term "identity" is used in a variety of different ways within the discipline of psychology (Syed, Azmitia, & Cooper, 2011; Syed et al., in press; Vignoles, Schwartz, & Luyckx, 2011). However, at a broad level, most conceptualizations of identity can fit

within a relatively simple designation: identity is the answer to the question, "Who am I?" (Syed & McLean, 2016; Vignoles et al., 2011). In the face of major life transitions, like marriage, having children, starting and ending careers, and immigration, answers to the question "Who am I?" may radically change. Here, I review relevant theory and empirical work on identity, with a focus on the consequences of major life transitions for identity development.

Eriksonian Perspectives on Identity

As discussed above, Erikson (1968) provided the main theoretical foundation of most modern research on personal identity. He described identity as "the awareness of the fact that there is a self-sameness and continuity to the ego's synthesizing methods, the style of one's individuality, and that this style coincides with the sameness and continuity of one's meaning for significant others in the immediate community" (Erikson, 1968, p. 50). Though Erikson proposed that identity development begins in earnest in adolescence and peaks in young adulthood, he recognized that identity development is a lifelong project that continues through adulthood. Identity may need to shift in adulthood, to adapt and adjust to life's changes and transitions: "During adulthood, the individual struggles to balance a faithfulness to some commitments with an inevitable confusion and abandonment of others" (Erikson, Erikson, & Kivnick, 1986, p. 130). Given Erikson's intentions, the modern perspectives stemming from his work are useful for understanding identity development in response to life transitions in adulthood. The field of Eriksonian identity research is currently occupied by two primary approaches: the identity status model, and the study of narrative identity and life stories. Below, I

describe each of these approaches, and the contributions they have made to the study of adult identity development.

Marcia's (1966; 1993; Kroger & Marcia, 2011) identity status model was one of the first successful operationalizations of Erikson's work, and has dominated much of the psychological literature on personal identity development (Kroger, 2015). This model borrows Erikson's processes of *exploration*, or trying out and learning about different possibilities, and *commitment,* or making decisions about what elements to incorporate into one's identity, and what elements to discard. Individuals are placed in one of four possible identity statuses based on whether they have or have not engaged in exploration or commitment.

Though Marcia's approach is largely focused on identity formation in adolescence and young adulthood, he and others have adapted this theory to explain identity stability and change in adulthood (e.g., Kroger, 2015; Marcia, 2002; Stephen, Fraser, & Marcia, 1992). One way that identity can develop through adulthood is through cyclical processes of moratorium-achievement-moratorium-achievement (MAMA cycles; Stephen et al., 1992). In these cycles, adults fluctuate between exploration and commitment, as new options present themselves, are considered, and potentially adopted as new identities. Bosma and Kunnen (2001) also propose a model of gradual, iterative identity change, in which fit between an individual's current commitments and their context is repeatedly evaluated and revised as needed. Identity can also be reformulated more precipitously, in response to sudden or major changes in life conditions. In these

cases, identity-achieved adults may regress back into diffusion, before returning to the exploratory processes of moratorium (Kroger, 2015).

The identity status model has thus generated several plausible hypotheses about how identity can change in response to life transitions. However, relatively little empirical work to test those hypotheses exists, perhaps because the identity status model represents a formistic approach to studying identity when the impact of life transitions may, in reality, be highly contextualized (Cooper, 1987). Formistic approaches seek to sort individuals into categories or types, often dichotomizing or otherwise creating groups when the underlying variables are continuous. Although these types of approaches are often a useful starting point for generating theory about a phenomenon, they over-simplify and fail to capture much of the variation that exists in reality. For example, Marcia's identity status framework is a relatively blunt tool for studying identity change over time, as for the most part, it allows researchers only to determine when and why individuals change from one status to another. Contextualist approaches, in contrast, address the nuanced interactions between an individual and his or her context, and may therefore be better suited to understanding a complex process like identity development over time. This is the approach that narrative identity researchers have taken, as I describe below.

The narrative identity approach is purposely geared toward examining the interaction between life events and identity development. Narrative identity is the ongoing, constantly evolving story of one's life that contributes to a continuous and coherent sense of self (Hammack, 2008; McAdams, 1993; McAdams, 2001; McAdams &

Pals, 2006; McLean, Pasupathi, & Pals, 2007). The focus of much research on narrative identity is on examining the ways in which patterns in life stories relate to mental health and other psychological outcomes of interest (e.g., Bauer & McAdams, 2004; King & Raspin, 2004; Pals, 2006).

Narratives are one way that individuals can make sense of their experiences, including major life changes that can disrupt their existing sense of self. Accordingly, there is a substantial body of literature on change narratives, or stories of changes in one's sense of self, often in response to major life transitions, such as religious conversions and career shifts (Bauer & McAdams, 2004), divorce (King & Raspin, 2004), bereavement (Baddeley & Singer, 2010), recovery from alcoholism (Dunlop & Tracy, 2013), and psychotherapy (Adler, Skalina, & McAdams, 2008; Adler, 2012). For example, Adler (2012) examined personal narratives written by clients undergoing psychotherapy before treatment, and after each of twelve treatment sessions. This study revealed that increases in the theme of agency in participants' narratives predicted improvements in their mental health, and that changes in mental health *followed* changes in agency themes. In other words, after clients started telling their therapy story in a way that highlighted their self-sufficiency and control, they started seeing improvements in their mental health. This and other narrative identity studies reveal how narrative constructs such as agency, redemption, and contamination may serve as mechanisms for identity change in response to transformative life events. The present study draws on these approaches to study identity dynamics, context changes, and mental-health

concerns that are present in veterans' narratives, and examines their relations to psychosocial outcomes of interest to veterans.

Though the narrative and identity status approaches have developed largely in parallel, Carlsson, Wängqvist, and Frisén (2015) have recently blended these approaches to examine identity stability and change among adults in their late twenties. While most participants tended toward stability in these years, as the exploratory processes of young adulthood resolved in commitments, the authors emphasized that did not mean that identity development was "complete" by this age. Instead, identity development continued in three ways: adjustments in the face of changing life conditions; continued meaning-making and deepening of life narratives; and increasing agency and control in setting one's personal life direction. This study is innovative in its strategy of combining narrative and status approaches, and also in its focus on an older population than usual for this literature. However, participants in this study were still limited in age, as only 25- and 29-year-olds were included.

Temporal Identity Integration and Disruption. A concept closely related to narrative identity is *temporal identity integration*, or continuity of one's sense of self across past, present, and future (Syed & Mitchell, 2015), also known as self-continuity (Becker et al., 2018) or continuous identity (Sokol & Eisenheim, 2016). Whereas the identity status model does not directly focus on continuity of the self over time, the narrative identity approach relies on and is fundamentally interested in such temporal unfolding. Temporal identity integration is related to constructs such as *future orientation* (i.e., individuals' tendency to think about and plan for the future; Nurmi,

1991) and *possible selves* (i.e., images of the self that one hopes to become in the future; Oyserman & Markus, 1990), though temporal identity integration is distinct in that it incorporates elements of past, present, and future.

Temporal identity integration was a foundational concept in Erikson's (1968) theory of identity development, and has been linked to important mental-health outcomes (Chandler et al., 2003; Sokol & Eisenheim, 2016). Although empirical work on temporal identity integration has historically been quite limited, it has recently drawn increasing scholarly attention (e.g., Becker et al., 2018; Rutt & Lockenhoff, 2016; Sedikides, Wildschut, & Grouzet, 2018; Solomontous-Kountouri & Hatzittofi, 2016; Syed & Mitchell, 2015). Though much remains yet to be explored, researchers are beginning to address major gaps in the literature by, for instance, conducting studies incorporating past, present, *and* future, studying a broader age range of participants beyond early adulthood, and explicitly testing the connections between temporal integration and clinical outcomes.

An important open question in this field of study is: What does a *lack* of temporal identity integration mean? Identity researchers have recently drawn attention to "the dark side" (Crocetti, Beyers, & Çok, 2016) of identity development, or what can go wrong in the process of identity development. Theorists have posited several forms of maladaptive identity development and empirical work has validated many of their ideas. For example, Erikson (1968) discussed a state of *identity diffusion*, referring to individuals who had not successfully developed an integrated identity. Marcia (1966) operationalized diffusion to mean a lack of exploration and commitment, exemplified both by young adolescents who

had not yet entered the process of identity formation, but also by those who have unsuccessfully attempted to engage in identity formation (Waterman, 1985). Theorists suggest that diffusion results in feelings of apathy, hopelessness, anxiety, and alienation (Waterman, 1985), and a large body of research (see Hatano, Sugimura, & Crocetti, 2016; Marcia, 1980; 1993; Morsünbül, Crocetti, Çok, & Meeus, 2016) has demonstrated associations between diffusion and negative outcomes such as low self-esteem, low autonomy, poorer cognitive performance under stress, problems in interpersonal relationships, anxiety, and depression. More recently, scholars have operationalized two distinct forms of identity diffusion (Luyckx, Goossens, Soenens, Beyers, & Vansteenkiste, 2005). *Carefree diffusion* characterizes those adolescents who were simply not interested in questions of identity yet, and although they had not undergone exploration or commitment, those individuals did not tend to experience the poorer mental-health outcomes classically associated with diffusion. In contrast, *diffused diffusion* represents a lack of exploration and commitment that is associated with distress and negative consequences in terms of social and academic adjustment. Beyond diffusion, researchers have suggested other maladaptive identity processes, such as *ruminative exploration,* a subtype of exploration that involves indecision, distress, self-questioning, and a struggle to make commitments (Luyckx, Schwartz, Berzonsky, Soenens, Vansteenkiste, Smits, & Goossens, 2008). *Reconsideration of commitment* involves reevaluation of existing components of identity, and attempts to change commitments that are no longer satisfactory (Crocetti, Rubini, & Meeus, 2008). While scholars have begun exploring the "dark side" of identity development, most of this work

remains focused on adolescence and young adulthood, with the vast majority of empirical work supporting these advances conducted with college students (see Schwartz, 2005, for further discussion on reliance on college samples in identity research).

I propose that identity disruption represents a different kind of failure of temporal identity integration, one that has not yet been operationalized by identity researchers. In this case, individuals may have already achieved integration earlier in life, but that stability is suddenly lost when life circumstances change. The consequences of this type of integration failure may be very different from the consequences of diffusion, ruminative exploration, reconsideration of commitment, and other identity problems more closely associated with adolescence. Disruption may then also require different types of intervention to resolve. The present study will examine the consequences of identity disruption for social support, and for mental-health outcomes relevant to veterans, including PTSD symptomatology, satisfaction with life, and reintegration difficulty. I now turn to a brief review of the literature on social support, as a main focal outcome in the present study, emphasizing the relations between social support and identity development.

Identity Development and Social Support

Social support includes resources provided by others, such as emotional warmth, companionship, praise, caregiving, practical advice, problem-solving, and help with concrete tasks (Antonucci & Akiyama, 1987; Azmitia, Syed, & Radmacher, 2013; Cohen & Wills, 1985; Procidano & Heller, 1983; Reis, Azmitia, Syed, Radmacher, & Gills, 2009). Research suggests that social support is an important contributor to positive

adjustment, and a protective factor against mental and physical illness (Cohen & Wills, 1985; Schwarzer & Leppin, 1991; Uchino, Cacioppo, & Kiecolt-Glaser, 1997). At the extremes, individuals with adequate social support are at lower risk of suicidal ideation (Hirsch & Barton, 2011) compared to those who are socially isolated (Bearman & Moody, 2004; Conwell, Duberstein, & Caine, 2002; Trout, 1980). In general, mortality is also higher among individuals with lower levels of social support (Berkman & Syme, 1979; Blazer, 1982; House, Robbins, & Metzner, 1982; Penninx, Tilburg, Kriegsman, Deeg, Boeke, & van Eijk, 1997). At more normative levels, studies have demonstrated that individuals with higher levels of social support also have lower levels of depressive symptomatology (e.g., Reis et al., 2009; Rueger et al., 2016; see Santini, Koyanagi, Tyrovolas, Mason, & Haro, 2015, for a systematic review).

There are several reasons to predict that identity development would be linked with social support. Erikson (1986) and other theorists (e.g., Bruner, 1990) acknowledged the important role that others play in shaping individuals' personal identities. Indeed, empirical work on ethnic and racial identity development reveals that family and peers can be important forces in shaping ethnic identity (e.g., Hughes, Rodriguez, Smith, Johnson, Stevenson, & Spicer, 2006; Umaña-Taylor, Gonzales-Backen, & Guimond, 2009; Huang & Stormshak, 2011). Considering the opposite causal direction, identity adjustment may be an important precursor for social support because close, intimate, supportive relationships require sharing one's authentic self with others (Pachankis, 2007; Newheiser & Barreto, 2014; Turner, Hewstone, & Voci, 2007). In Erikson's (1968) classic theory, the developmental stage following the *identity vs. role*

confusion stage is *intimacy vs. isolation*, suggesting that the identity development that normatively occurs in adolescence and young adulthood lays the foundation of development of close, intimate relationships in adulthood. However, relatively few empirical studies in the developmental literature directly address the interplay between identity and social support.

That said, a substantial body of literature stemming from social psychology that examines *self-concept clarity*[1], a very similar (and perhaps indistinguishable) construct to identity integration, does more directly address connections to social relationships, at least in the domain of romantic relationships (Campbell, Trapnell, Heine, Katz, Lavallee, & Lehman, 1996). For example, Lewandowski, Nardone, and Raines (2010) found a positive association between self-concept clarity and relationship satisfaction and commitment, and Emery, Gardner, Finkel, and Carswell (2018) found that individuals with low-self concept clarity tended to be less supportive of their partners' efforts at self-change, with negative consequences for relationship quality. Overall, it seems that self-concept clarity promotes positive close relationships, and this may in turn lead to greater access to social support – consistent with Erikson's theory.

In addition to social support, the present study examines the relations between identity disruption and mental-health outcomes relevant to veterans: PTSD symptom

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[1] See Syed et al., 2018, for a discussion of concepts of "identity" and "self" in social and developmental psychology. The authors conclude that these concepts are, in many cases, functionally the same, though these literatures have developed with little cross-communication. Schwartz, Meca, and Petrova (2017) have also acknowledged considerable overlap between personal identity and self-concept clarity, while making the distinction that personal identity represents the "I" self (self as author) and self-concept clarity represents the "me" self (self as story). However it is unclear that this distinction is reflected in the empirical literature on these constructs.

severity, satisfaction with life, and reintegration difficulty. Below, I describe the reasons for selecting veterans as a population to study identity disruption, and discuss the reasons for choosing these outcomes to represent veterans' mental health status.

Mental-health concerns Relevant to Veterans

Veterans have been the subject of research on identity since Erikson's earliest work (Erikson, 1946). He was interested in the rupture in identity caused by the experience of combat, and veterans' difficulties creating coherence between their pre- and post-war selves. For many reasons, veterans are an ideal population for studying the intersection of identity development and social support. First, studies of identity and social support primarily rely on college student samples, and studying veterans allows for meaningful extension of the literature beyond a population that is typically studied. Furthermore, most work on identity development focuses on adolescents and young adults. Veterans tend to be older (e.g., the sample for the current study ranges in age from 23 to 67) and focusing on veterans expands the study of identity development to less frequently studied stages of life. Finally, consistent with much of the literature on identity and social support, veterans experience major life transitions that are relevant to changes in identity and social relationships. It is common for veterans to relocate several times, often overseas, and all veterans in the sample for the current study have undergone the major transition of ending deployment and returning to civilian life. Shifts in identity and social support are most common, most theoretically interesting, and most crucial for mental health in the context of changing life conditions. Veterans' experiences with

major life transitions qualify them as a population relevant for studying questions of identity change, social support, and mental-health outcomes.

Theoretical contributions that can be made by extending research on identity and social support to veterans are important, and there are also reasons to be interested in this population for clinical purposes. Veterans' identities and social support networks are vulnerable in the transition to civilian life (Demers, 2011; Orazem, Frazier, Schnurr, Oleson, Carlson, Litz, & Sayer, 2016; Pietrzak, Johnson, Goldstein, Malley, & Southwick, 2009; Sayer, Noorbaloochi, Frazier, Carlson, Gravely, & Murdoch, 2010). Disruptions to identity and social support may contribute to the elevated risk for mental illness that veterans experience relative to civilian populations. Research clarifying the relations between these constructs and mental-health outcomes may inform interventions aimed at mitigating and preventing negative mental-health consequences of reintegration.

Given the theoretically broad importance of identity integration to veterans' adjustment, I selected psychosocial outcomes for the present study from among those measured in the parent study, in large part based on their relevance to veterans. The literature on identity integration demonstrates that integration is correlated with a broad array of psychosocial outcomes (Syed & McLean, 2016), such as neuroticism, depressive symptoms, and self-esteem (Luyckx, Schwartz, Soenens, Vansteenkiste, & Goossens, 2010), academic success (Oyserman & Destin, 2010; Nurra & Oyserman, 2018), creativity (Cheng, Sanchez-Burks, & Lee, 2008), and general subjective well-being (Van Hoof & Raaijmakers, 2002). Because identity integration appears to be important for so many mental-health outcomes, I focused the present study on a set of outcomes that

reflect a balance of both positive and negative adjustment, and that are relevant to veterans, namely PTSD symptom severity, satisfaction with life, and reintegration difficulty.

I selected PTSD symptoms as the first mental-health concern to investigate because PTSD is a pervasive concern for veterans returning from combat (Sayer, Carlson, & Frazier, 2014). Military combat often puts service members at risk of witnessing or experiencing the kinds of traumatic events that can cause PTSD, and the prevalence of PTSD among combat veterans in the year after deployment is substantially higher than among the general population (Kessler, Chiu, Demler, Merikangas, & Walters, 2005; Smith, Ryan, Wingard, Slymne, Sallis, & Kritz-Silverstein, 2008; Sundin, Fear, Iversen, Rona, & Wessely, 2010). There is relatively little research available on identity integration and PTSD, and indeed, some researchers have argued that the interface between the literature on identity development and clinical concerns is generally not robust enough (Kaufman, Montgomery, & Crowell, 2014). However, a growing body of research on trauma centrality outlines how traumatic events may be incorporated into an individual's identity, which may in turn exacerbate or perpetuate PTSD symptoms (e.g., Boals & Ruggero, 2015; Brown, Antonius, Kramer, Root, & Hirst, 2010), suggesting that PTSD may be meaningfully affected by identity dynamics.

I also examined satisfaction with life as a measure of positive well-being. Mental health can be conceptualized as both an absence of mental illness, and also as the presence of mental wellness (e.g., Keyes, 2002). Identity researchers have noted this distinction between positive well-being and negative adjustment, and recommended

measuring both positive and negative outcomes where appropriate (Syed, 2017), and so I felt it was important to include at least one positive outcome measure in the present study. Life satisfaction is a broad, subjective measure of quality of life (Mroczek & Spiro, 2005). Reintegration back into civilian life poses a wide range of challenges that can threaten veterans' quality of life (Sayer et al., 2014), and one study comparing quality of life among Vietnam-era veterans and non-veterans found that veterans experienced lower satisfaction in the domains of careers and finances, as well as lower overall life satisfaction (though it should be noted that the study did not collect random samples of veterans and non-veterans for comparison; Bookwala, Frieze, & Grote, 1994). The idea that identity disruption may affect life satisfaction is also consistent with theory on identity development, and Erikson's early observations of veterans returning from combat (Erikson, 1946, 1968).

Finally, overall reintegration difficulty was examined as a psychosocial outcome of importance to veterans. The Military to Civilian Questionnaire (M2C-Q; Sayer et al., 2011) measures perceived difficulty in a variety of domains, including relationships with family and friends, employment, community reintegration, self-care, and feelings of belongingness. Like satisfaction with life, reintegration difficulty can be seen as a broad index of quality of life, but measuring the negative side, and more specific to veteran populations. Reintegration difficulty may also reflect common problems in psychosocial functioning associated with the reintegration transition that do not necessarily rise to the level of a clinical diagnosis, and thus tap into a different range of concerns than PTSD symptom severity. Because identity integration is theorized to facilitate healthy

functioning across a range of psychosocial domains, it is reasonable to expect that identity disruption would cause difficulty functioning in the domains measured by the M2C-Q.

The Present Study

In this study, I aim to better elucidate veterans' experiences of *identity disruption*, or sudden, acute changes in the sense of self as a consequence of disruptive life events, and the consequences of identity disruption for veterans' well-being. My mixed-methods approach uses qualitative data from an open-ended, expressive writing intervention, alongside longitudinal quantitative data measuring social support and mental-health outcomes at baseline, three months, and six months after the writing intervention. By coding identity disruption in participants' qualitative responses and linking these codes to the quantitative data, I can both explore the construct of identity disruption, and also determine whether participants who express identity disruption tend to experience different trajectories of social support and mental health over time. My study aimed to achieve three main objectives, described below.

My first objective is to describe and operationalize the experience of identity disruption for veterans reintegrating back into civilian life. Theory and empirical work on identity development has focused primarily on identity formation in adolescence, rather than on how identity adjusts to changing circumstances later in life. I propose that identity disruption is an appropriate construct for understanding identity change and stability in adulthood. Prior research with this dataset has demonstrated that veterans experience a range of identity concerns as a consequence of reintegration (Orazem et al.,

2016). The present study builds on Orazem and colleagues' findings, extending their work and examining identity disruption in more depth. I analyze veterans' open-ended responses using thematic analysis methods (Braun & Clarke, 2006) to thoroughly describe and characterize their experiences of identity disruption, to create an operational definition for identity disruption, and to generate codes to quantitatively represent whether each participant reported identity disruption. Through this process, I also generate a set of initial items that can be used for future psychometric work to develop a scale for measuring identity disruption. I can also use the quantitative codes to determine whether identity disruption is associated with any particular characteristics or demographics, and to learn whether certain groups are more susceptible than others to a disruption in their sense of self. This objective lays the groundwork for future research and theoretical work using the construct of identity disruption to explain identity development in adulthood.

My second objective is to analyze the relations between identity disruption and outcomes of interest, including social support, PTSD symptoms, satisfaction with life, and reintegration difficulty. Though we understand the beneficial impacts of social support on mental-health outcomes, the mechanisms for developing social support are poorly understood. Given that theory suggests that developing a coherent identity is a necessary precursor to building close and supportive relationships, I hypothesize that veterans with more coherent identities will build more supportive networks than those with disrupted, incoherent identities. I will use the identity disruption codes established in the first objective to test the relations between identity disruption and social support,

revealing the relation between identity disruption and development of social support after deployment.

Similarly, I conduct quantitative analyses to test the associations between identity disruption and mental-health outcomes that are important to veterans, including PTSD symptoms, satisfaction with life, and reintegration difficulty. If, as Erikson (1968) theorized, identity dynamics have meaningful consequences for mental health in adulthood, then the experience of identity disruption should be associated with negative mental-health consequences.

I test this hypothesis by examining the longitudinal relations between identity disruption and the outcomes listed above. Specifically, I predict that individuals who evince identity disruption in their written responses will experience lower initial levels of social support and satisfaction with life that decrease over time, and higher levels of PTSD symptom severity and reintegration difficulty that increase over time. I expect both worse initial levels *and* worsening over time. If identity functions as a resource and a tool for interacting with the world, as Erikson proposed, then I predict that disruptions to identity that remain unresolved will continue to interfere with functioning and cause increasing psychosocial damage over time. Completing this objective will reveal whether identity disruption, as I have operationalized it, is associated with other constructs that are relevant to veterans' adjustment.

My third objective is to determine whether any relations between identity disruption and outcomes of interest persist when controlling for participants' expressed mental-health concerns and context changes. An important question when

conceptualizing a new construct like identity disruption is whether that construct adds explanatory power over and above other constructs that are more familiar or straightforward. I address this question through planned analyses that replicate the modeling described in objective two, and also include expressed mental-health concerns and context changes as covariates in the analyses, to control for their effects.

Expressed mental-health concerns reflect the severity of mental-health concerns that participants explicitly discuss in their narratives (for instance, a participant writing about feeling anxious, or wanting to stay in bed all day). It is expected that identity disruption will have substantial conceptual overlap with mental illnesses such as depression; both may, for instance, involve feeling helpless and lacking purpose. By including codes for both identity disruption and expressed mental-health concerns in the models, we can distinguish between these concepts and determine whether identity disruption has any predictive power over and above more familiar symptoms of mental illness.

Context change refers to the concrete, external or environmental consequences of reintegration that participants discuss in their narratives (e.g., taking a salary cut, or becoming estranged from family members). It is important to determine whether identity disruption helps explain any changes in mental health over and above the effects of mere context changes. Part of the conceptualization of identity disruption is that individuals who maintain coherent identities through the reintegration transition will be more resilient when faced with context changes will than individuals experiencing identity disruption who confront similar changes. By coding and controlling for context changes,

we can tease apart the effects of these external changes from the effects of the internal, psychological experience of identity disruption.

I hypothesize that any associations between identity disruption and social support, PTSD symptoms, satisfaction with life, or reintegration difficulty that are found through objective two will be weakened, but still detectable, when controlling for expressed mental-health concerns and context changes.

In addition to these three objectives, I have coded the open-ended data for several additional related categories that allow for further exploratory analysis. Specifically, in addition to context change, I have also coded context continuity, self-change, and self-continuity. These codes will allow me to conduct analyses to determine, for example, whether context continuity may compensate for context changes in influencing mental-health outcomes. Because I did not have specific hypotheses about the role of context continuity, I have included these analyses, along with other exploratory analyses, in a section denoted for post-hoc analyses in the results section below.

Methods

The Military to Civilian Research Study

The data for the present study are drawn from the Military to Civilian Research Study, a larger parent study (Sayer et al., 2015). Before describing the present study, I begin by describing the recruitment strategy, design, and relevant procedure for the parent study. After providing this context from the parent study, I describe the participants, measures, and analytic procedures used in the present study.

The purpose of the parent study was to test whether an expressive writing intervention designed to improve mental-health outcomes among civilians would also be effective in a military population. Participants for the parent study were recruited by randomly sampling from the roster of all U.S. Afghanistan and Iraq war veterans. Eligibility questionnaires were sent to 15,686 veterans, and 8,207 (52.3%) responded. Veterans were eligible for the study if they reported *a little, some, a lot*, or *extreme difficulty* "readjusting back into civilian life." Other eligibility criteria included having internet access, email, and a phone number. Because recent evidence suggests that individuals with severe depression would not benefit from the type of intervention tested in this study (Baum & Rude, 2013), veterans who scored higher than 20 points on the Patient Health Questionnaire-Eight-item Depression Scale (Kroenke, Strine, Spitzer, Williams, Berry, & Mokdad, 2009) were excluded from the study. Of those veterans who responded to the eligibility questionnaire, 3,645 (44.4%) met these criteria, and 1,292 (35.4%) enrolled in the study (see Figure 1).

The design of the parent study was a randomized controlled trial, with follow-up assessments at three and six months after the intervention. Participants were assigned to one of three conditions: Expressive Writing, Control Writing, or No Writing Control, at a ratio of 2:2:1 (see Figure 1). Women were oversampled in the recruitment process, and gender was used as a blocking factor, to evenly distribute assignment of men and women to the three conditions. All participants completed an online survey, including demographic information at baseline, and measures of mental-health outcomes and social

support at baseline, three months, and six months. A small number of participants completed paper-and-pencil versions of these assessments instead.

The writing instructions were largely drawn from a similar expressive writing intervention designed by Pennebaker (2013). Participants in the writing conditions were asked to complete four writing sessions in the space of ten days, at times convenient to them. Most participants elected to complete their writing sessions on consecutive days. Each writing session lasted at least 20 minutes, as participants were not permitted to move forward in the online survey until 20 minutes had elapsed. Participants were informed that they should not worry about spelling, grammar, or repetition in their writing, that their writing would be kept confidential, and that they would not receive any feedback or follow-up on their writing unless it included plans to harm themselves or someone else.

Participants in the Expressive Writing condition were asked to write about their deepest thoughts and feelings about reintegrating back into civilian life following deployment (see prompt in the Measures section). Participants in the Control Writing condition were instructed to write about factual topics, including VA services and benefits, the types of information that veterans should be provided about VA services and benefits, the types of information the general public should have about veterans, and how the VA could use online technology to help veterans. Participants in the No Writing Control condition completed only the survey assessments, with no writing instructions.

The present study uses data from only participants in the Expressive Writing condition. Five hundred and eight participants were randomly assigned to this condition,

with 402 completing both the 3- and 6-month follow-up assessments. The median number of words in each writing sample (i.e., one writing session) was 504 (Orazem et al., 2016). A data-reduction strategy was necessary, in order to reduce the large amount of qualitative data to a manageable load. Of the Expressive Writing sample, 244 completed all four writing assessments. These participants were selected for inclusion in the current study, as the research aims include generating codes for identity disruption and context change based on holistic assessment of participants' entire writing record. Therefore, I felt it was necessary that a full and complete sample of writing was available for each participant included in the study. Given that I would not be able to analyze the entire set of qualitative data available, I wanted to focus on the participants who had provided a complete writing sample. In the following sections, I describe the characteristics of this subset of 244 participants, the relevant measures, and the analytic strategy for the current study.

Participants

Two hundred forty-four participants met the inclusion criteria for the current study (see Table 1). These participants had an average age of 38.8 years (*SD* = 10.6, range = 23-67) and were 59.4% male. The sample consisted mostly of White individuals (66.4%), and 14.3% Black, 13.9% Hispanic, 2.9% Asian, 1.2% Native American, and 3.7% Multiracial individuals. In terms of family relationships, 17.2% were never married, 63.9% were married or partnered, 18.9% were divorced or separated, and 69.3% were parents. Income ranged, with 11.9% earning less than $20,000 annually, 25.0% earning $20,000-40,000, 18.4% earning $40,000-60,000, and 37.3% earning more than

$60,000. Education levels varied, with 6.1% reporting a high school diploma, 38.5% some college, 36.5% a college diploma, and 15.6% an advanced degree. The average time since deployment was 6.2 years (*SD* = 2.5, range = 1-11). Both active duty (54.9%) and Reserves/National Guard (40.2%) service members were well represented. About half (54.5%) were members of the Army; 18.9% had been in the Air Force, 11.1% in the Marines, and 15.6% in the Navy. Most (77.9%) were enlisted, and 20.1% were officers. The average number of deployments was 1.1 (*SD* = 1.1, range = 0-6).

Measures

Demographics. Measures of demographic information included: ethnicity (i.e., Hispanic or non-Hispanic), race (i.e., White, Black, Asian, Native American, Multiracial, or Unknown), highest degree obtained, annual household income, parental and marital status, military branch (e.g., Army, Air Force, Navy, Marine), rank (i.e., enlisted, officer, or warrant officer), and component (i.e., active duty, Reserves/National Guard, or other). These measures were taken at baseline. Measures of sex, age, number of deployments, and time since most recent deployment were also drawn from military enlistment rosters.

Expressive Writing Prompt. Participants responded to the following open-ended expressive writing prompt:

> *For the next 20-minutes,* ***write about resuming civilian life after your military deployment*** *[bolded in original]. Try to explore your deepest thoughts and feelings about your transition to civilian life, including the challenges you are currently facing and the reasons for these challenges. In your writing, you might address issues dealing with your deployment or relationships with fellow service*

members. Many people also write about their friends, lovers, family members, and other relationships. Feel free to link your reintegration to events from your past, your present, or your future; to who you have been, who you are now, or who you would like to be. The important thing is that in your writing you allow yourself to explore your deepest thoughts and feelings.

This prompt was included only in the four writing sessions at the beginning of the study. These responses were coded using the procedures described in the Coding Strategy section below.

Perceived Social Support. Perceived social support, including both instrumental and emotional social support, was measured at baseline, three and six months using the Post-Deployment Social Support Scale of the DRRI (King, King, & Vogt, 2003). This scale includes 15 items measured on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). The items include six that are specific to military service members (e.g., "The American people made me feel at home when I returned) and nine that are appropriate for the general population (e.g., "Among my friends or relatives, there is someone I go to when I need good advice.") Ten items measure emotional support (e.g., "Among my friends or relatives, there is someone who makes me feel better when I am feeling down") and five items measure instrumental support (e.g., "When I am ill, friends or family members will help out until I am well.") Higher scores on this scale indicate a greater degree of perceived social support. Scores on this scale were reliable at all three time points (alpha = .791 at baseline, .819 at three months, and .840 at six months).

Past-month PTSD Symptom Severity. PTSD symptom severity was measured at baseline, three and six months using the PTSD Checklist-Military Version (PCL-M; Weathers, Litz, Herman, Huska, & Keane, 1995; Blanchard, Jones-Alexander, Buckley, & Forneris, 1996). Participants used a 5-point Likert scale (1 = not at all, 5 = extremely) to respond to the 17 items, which correspond to DSM-IV criteria for PTSD, indicating how much they have been bothered by each symptom in the past month. A sample item is, "Repeated, disturbing memories, thoughts or images of a stressful military experience." This scale may be used as a diagnostic screen by examining the number of reported symptoms within clusters that map on to DSM-IV symptom criteria. However, for the purposes of this study, I use only the continuous total scale score as an overall measure of PTSD symptomatology, with higher scores indicating that the participant has experienced more severe PTSD symptoms. Reliability was good for all three measurements (alpha = .950 at baseline, .952 at three months, and .963 at six months).

Satisfaction with Life. The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larson, & Griffin, 1985) was used to measure satisfaction with life at baseline, three and six months. This scale includes five items, rated on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree). Sample items include, "I am satisfied with my life" and "If I could live my life over, I would change almost nothing." Higher SWLS scores indicate greater satisfaction with life. Reliability was good at all three time points (alpha = .904 at baseline, .914 at three months, and .916 at six months).

Past-month Reintegration Difficulty. The Military to Civilian Questionnaire (M2C-Q; Sayer et al., 2011) is a measure of community reintegration difficulty following

deployment. This measure was included at baseline, three and six months. Most of the 16 items are rated on a 5-point Likert scale (0 = no difficulty; 4 = extreme difficulty), with some items including a "does not apply" response option. Items are presented with the prompt, "Over the past 30 days, have you had difficulty with…" Sample items include "Making new friends" and "Doing what you need to do for work or school." Higher scores on the M2C-Q indicate greater difficulty with the reintegration transition. Reliability was acceptable (alpha = .777 at baseline, .810 at three months, .794 at six months).

Coding Strategy

The overall coding strategy was drawn from Braun and Clarke's (2006) method for thematic analysis. Thematic analysis includes six steps. First, coders familiarize themselves with the data by reading and re-reading all available data and making note of initial ideas. Second, coders generate initial codes, noting patterns in the data and proposing initial coding categories, thereby creating a "draft" coding scheme. This "draft" scheme is then developed and refined by testing it out with subsets of the data, making changes to the coding scheme as needed (e.g., adding new categories to capture new patterns, eliminating categories that are infrequently encountered, adjusting definitions of categories to make them more precise), and collating the data within categories to ensure they are internally consistent. The third step is searching for themes, which involves sorting codes into broader themes and compiling the codes within each theme. Fourth is reviewing themes, to check that themes make sense in relation to the codes that they contain. Fifth is defining and naming themes, via which themes are

pinned down with specific definitions and names, and the overall story of the data comes together. Finally is producing the report of the analysis, including extracting quotes, relating the analysis to the research questions and existing literature, and creating a written report. Thematic analysis is a flexible form of qualitative analysis, and can be applied to inductive or theoretically driven analysis, analysis of semantic or latent themes, and analysis that either aims to holistically capture the content of an entire data set, or focuses on a specific aspect of the content (Braun & Clarke, 2006).

I adapted these methods to fit the research goals of this study. In particular, my broadest level of coding categories were dictated by the research goals, rather than generated inductively from the data as suggested by Braun and Clarke. To test my hypotheses, I needed to code for identity disruption, expressed mental-health outcomes, and context change. I also decided to code for several related constructs, including context continuity, self-change, and self-continuity, to facilitate future research. These categories were decided prior to beginning the coding process, and formed the broadest level of coding categories. Lower-level categories were determined inductively through the refining process described in step two above. For example, for context change, I generated an initial list of categories and preliminary definitions by reading a subset of the data and listing all types of context change. The coding team then tested out this (draft) coding scheme with a separate subset of the data, keeping a list of questions and ideas as they coded. We then met to discuss these questions and ideas and to resolve coding discrepancies, making changes to the coding scheme as needed to improve precision of the categories. For instance, we decided to break the subcategory

“relationship change” into three separate subcategories because many participants reported meaningfully different experiences with their partners, families, and friends within the same narrative. This process was repeated until no further changes to the system were needed, yielding nine final subcategories for context change: work change, residence change, friends change, family change, partner change, financial change, health services change, going to school, and lack of structure. Definitions and exemplar quotes for these categories are available in Table 2.

Subcategories for context continuity and self-change were generated in the same way. The subcategories we created for context continuity largely mapped onto those for context change, including work continuity, friends continuity, family continuity, and partner continuity, as well as transitional programs (i.e., specific programs aimed at smoothing veterans’ transition to civilian life, and therefore intended to contribute to a sense of contextual continuity) and continued military involvement (i.e., continued participation in military service or culture). The subcategories for self-change included physical change, heightened awareness, volatility, withdrawal, and lessons learned. For all subcategories within context change, context continuity, and self-change, participants’ responses were coded by valence, so that both the type and the valence of the response was recorded (e.g., positive residence change indicated that participants moved to a new place and felt positively about their new home; negative residence change indicated that participants moved and disliked their new home).

Self-continuity was mentioned relatively infrequently, and there were not clear patterns of domains or types of self-continuity in the data, so we kept this category coded

only at the broadest level: responses could be coded for positive or negative self-continuity. For mental-health concerns, no subcategories were determined inductively. Instead, I decided to create three subcategories (mild, moderate, and severe) in order to capture some of the variability in the severity of mental-health concerns expressed by participants, to facilitate quantitative analysis with this variable. I proposed initial definitions for the mild, moderate, and severe subcategories, and the team refined and adjusted them according to the process outlined above.

Because identity disruption is a new construct, we conducted a more thorough, inductively driven analysis to describe participants' experiences of identity disruption in depth. Beginning with the theoretically-founded idea that identity disruption involves an abrupt, disruptive, and deep change in one's sense of self, as a consequence of environmental change, members of the coding team first read subsets of the qualitative data, in sets of 30 responses at a time. Responses that included content related to this definition of identity disruption were flagged for discussion and further analysis. The coding team met weekly to review these participants' responses and to create "captions" for them, boiling down the response into a short sentence or phrase that captured the participant's experience of identity disruption. Examples include, "I feel like everything I have been working toward is over," and "It's hard for me to readjust to who I was before." A complete list of these captions is available in Table 4. We continued to read responses and add captions to the list until we found our list of captions represented the majority of participants' experiences, and no new captions were needed (i.e., saturation had been achieved; Dey, 1999; Saunders, Sim, Kingstone, Baker, Waterfield, Bartlam,

Burroughs, & Jinks, 2017). I then collected these captions and searched for patterns, eventually grouping them into four overarching themes: loss of meaning or purpose; disconnection between past, present, and future selves; role dysfunction; and loss of self-worth. These themes are described in turn in the Results section below. They are not intended to be mutually exclusive; many participants' responses incorporated two or more of these aspects of identity disruption. Identity disruption was quantitatively coded for presence or absence only: if participants met the overarching criteria for identity disruption, they were coded as reporting identity disruption, regardless of which of the four theme(s) reflected their responses.

Coding was carried out by a team including myself and 3-4 undergraduate research assistants trained in the coding system (coding took multiple semesters to complete, and not all lab members participated in the entire coding process). The "gold standard/master coder" strategy (Syed & Nelson, 2015) was employed, in which one member of the coding team (me) codes all of the data, and a reliability coder codes a subset of the data (in this case, 30 participants' responses, or 12% of participants) to establish inter-rater reliability for each category. Throughout the coding process, I held weekly meetings with the coding team to discuss difficult responses and establish consensus on how to categorize them. Reliability estimates, including kappa and percent agreement, and frequencies for each coding category are reported in Table 3.

NVivo software (version 11; QSR International, 2015) was used to code the data, and coding matrices were exported to SPSS (version 24.0; IBM Corp., 2015) for use in quantitative analysis. Data were coded by writing session (as opposed to by participant),

so that each participant received separate scores for the first, second, third, and fourth writing session. Although the research questions of the present study are most appropriately addressed at the participant level, I decided to code at the writing session level to facilitate possible future research examining stability and change within participants, across writing sessions. For the present study, summary scores across the writing sessions were created in order to collapse across the four writing sessions, so that scores for coding categories represent the totality of each individual's written response. For identity disruption, positive and negative self-continuity, participants received a score of "1" when the category was present in any of their four responses and a "0" when the category was not present in any of their responses. For mental-health concerns, participants received a score of "3" when they indicated severe mental-health concerns in any of their responses, a "2" when they indicated a maximum of moderate mental-health concerns in any response, a "1" when they indicated a maximum of mild mental-health concerns in any response, and a "0" when they indicated no mental-health concerns in any of their responses. For context continuity, context change, and self-change, the number of positive and negative subcategories generated were added to compute a summary score. For instance, a participant who reported negative work change, negative financial change, and negative friends change would receive a score of "3" for negative context change, because he or she reported three different kinds of negative context change. A participant who reported negative work change and positive friends change would receive a score of "1" for negative context change and "1" for positive context

change. Once the coded data were converted to quantitative variables, they were used for the descriptive analyses and latent growth curve modeling reported below.

Results

Results of the qualitative coding are presented in Table 2, which lists coding categories with descriptions and illustrative quotes[2] for each category, and Table 3, which includes frequencies and reliability estimates for each category. Here, I first discuss the qualitative findings regarding identity disruption as participants described their experiences in their written responses. I then report the results of the quantitative analysis, starting with descriptive analyses comparing the baseline demographics of individuals who reported identity disruption to those who did not report identity disruption, to determine whether identity disruption is more common among some groups than others. I report the results of latent growth curve models testing the specific hypotheses about the consequences of identity disruption for social support, PTSD symptoms, satisfaction with life, and reintegration difficulty. Finally, I report the results of post-hoc analyses conducted to further explore the construct of identity disruption, and the role of context continuity. It should be noted that, although qualitative coding was carried out at the *writing session* level (providing four data points per participant), these data were converted to scores at the *participant* level, as described in the previous section, for the purposes of the current quantitative analyses.

Qualitative Analysis of Identity Disruption

[2] Illustrative quotes are presented as written by participants, with no changes to the text. It should be noted that participants were encouraged to write freely and openly without editing spelling, grammar, etc.

The qualitative coding process generated four themes capturing different types or dimensions of identity disruption. Below, I describe each of these themes in turn.

Loss of meaning or purpose. In these responses, participants' experience of identity disruption was mostly felt as a loss of purpose or meaning in life. For many participants, the end of deployment also represented their permanent separation from the military, and becoming disconnected from the military left them feeling unfulfilled, and questioning the meaning of their work and lives. For example, one participant wrote: "There is nothing in civilian life that will ever be as fulfilling or important as what I did in the military I have never felt as proud or as special and I will never feel that way again." Many participants expressed missing the feeling of contributing to a larger mission. Though this theme was often expressed by participants who were unemployed at the time of writing, even some participants who had transitioned to a new career felt it did not provide the same sense of purpose that their military service had. For instance, a participant who had transitioned into a teaching career wrote:

> I have been retired for 3 years now but still think about USAF every day. How can one not after it was a life for 26 years? The biggest challenge remains to feel I am living a meaningful life.

These responses mapped closely onto the identity adjustment difficulty identified by Orazem et al. (2016), "Difficulty finding meaning."

Disconnection between past, present, and future selves. These responses were characterized by a lack of continuity between past, present, and future selves (i.e., a lack of temporal identity integration; Syed & Mitchell, 2015). Participants whose identity

disruption involved disconnection between their past and present selves often expressed feeling cut off or estranged from their past selves, or alternatively, trapped in the past, missing being their past selves, and unable to move forward. For example, one participant wrote:

> i try not living in the past but its hard to move on from something that you lived for the past 4 years…i dont know why but i feel fortunate that i went in but in reality i feel that everyone has moved on and im sort of stuck in the past. i wish i could turn back time.

Other participants felt disconnected from their future selves, often expressed as feeling directionless or unable to imagine a viable future. The following quote illustrates how disruption caused by this participant's deployment experiences has made it difficult for him to visualize and plan for the future:

> i sometimes have a hard time making long term goals, i want to make a goal that is reachable but it never seams to go farther than a couple of months. i think this is because i had made a lot of plans with my ex-wife and then while i was deployed all of those hopes plans and dreams ceased to exist.

Role dysfunction. Some participants experienced disruption of a specific aspect of identity, often captured by a particular social role, such as parent, soldier, civilian, woman, mechanic, or athlete. These instances are characterized by an interplay between the way individuals think of themselves, and the way they are perceived and treated by others. For example, one participant described difficulty switching to the role of parenting, after having served in a military leadership role:

> One of the frustrating things about transitioning is the loss of power that you feel when coming home from deployment. In afghanistan I was the executive officer of a transportation company that delivered critical supplies to dozens of different forward operating bases and combat outposts…I worked 7 days a week, 20 hour days. And when it was all said and done I was awarded a Bronze Star for my extraordinary success and hard work...Then when I got home, I had to learn to be a dad. My daughter was born while I was gone and my wife and her were in a pretty good routine. So I come in and get treated like some type of assistant who doesn't know anything.

In particular, participants who had a high level of expertise and training in a specific career or skill felt that their sense of self was unmoored when they were no longer able to inhabit that role. As one participant put it:

> The hardest part of my transition is the feeling of loosing part of my identity when I left the Air Force. I am no longer responsible for big programs...I don't get asked for my SERE expert opinions or parachute background questions from Colonels and Generals. I feel like I lost part of myself and this was honestly pretty hard to deal with.

Others struggled with the roles of civilian and service member, for example, feeling that they could never fit into civilian society, or feeling that others misjudged them because of their military background. For example, one participant wrote:

> I felt like I was permanently stamped as a veteran. I felt like people could tell just by looking at me that I was someone who had been in the military. I felt like they thought that I only operated if given specific instructions.

Loss of self-worth. For some participants, identity disruption was expressed primarily as a loss of self-worth or doubt about their value as a person in civilian society. These feelings were often accompanied by a loss of purpose, disconnection between past, present, and future, or role dysfunction, but are distinguished in that they involved a negative evaluation of the self. For example, participants experiencing a loss of self-worth often expressed doubts about the value of their past accomplishments, feeling like they had been "demoted" to a less important place in the world, or feeling like their lives had become an embarrassment. As one participant described,

> I feel so pathetic right now. I was a strong person, someone who graduated basic training with honors! I love the training, my TI's respected me! The males on my team respected me! I had respect, I had a life, I had friends, I was good at what I did. I could do things for myself. I feel like a bottom feeder right now

Identity Disruption and Baseline Demographics

Chi-square analyses were used to test for associations between identity disruption, and the following categorical baseline demographic variables: sex, race, parenthood, marital status, education level, income level, military branch, rank, and component. These tests revealed no deviations from the distributions expected by chance for sex, $\chi^2(1, N = 244) = .247$, $p = .619$, $v = .032$; for race, $\chi^2(5, N = 244) = 4.424$, $p = .490$, $v = .135$; for parenthood, $\chi^2(1, N = 244) = .050$, $p = .823$, $v = .014$; for marital status, χ^2(2, N

= 244) = 1.092, $p = .579$, $v = .067$; for education level, $\chi^2(4, N = 244) = 5.565$, $p = .234$, $v = .151$; for income level, $\chi^2(4, N = 244) = 1.359$, $p = .851$, $v = .078$; for military branch, $\chi^2(3, N = 244) = 2.322$, $p = .508$, $v = .098$; for rank, $\chi^2(2, N = 244) = .204$, $p = .903$, $v = .029$; or for component, $\chi^2(2, N = 244) = 5.086$, $p = .079$, $v = .144$. It appears that sex, race, parenthood, marital status, education level, income level, military branch, rank, and component were not associated with individuals' likelihood of indicating identity disruption in their written responses.

Two-tailed, independent samples *t*-tests were used to compare the average age, number of deployments, and time since last deployment for individuals reporting identity disruption, compared to those not reporting identity disruption. On average, individuals reporting identity disruption were younger ($M = 37.31$, $SD = 10.287$) than individuals not reporting identity disruption ($M = 40.24$, $SD = 10.735$), $t(242) = 2.176$, $p = .031$, $d = .279$ (see Figure 2 for a histogram illustrating the frequency of reporting identity disruption by age group)[3]. There were no significant differences in number of deployments for individuals reporting identity disruption ($M = 0.99$, $SD = 1.012$) versus not reporting identity disruption ($M = 1.20$, $SD = 1.109$), $t(242) = 1.556$, $p = .121$, $d = .198$. Neither were there significant differences in the time since last deployment for individuals reporting identity disruption ($M = 6.50$, $SD = 2.429$) versus not reporting identity disruption ($M = 5.97$, $SD = 2.570$), $t(241) = 1.659$, $p = .098$, $d = .212$.

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[3] Bivariate correlations were run to examine the relations between age and the other study variables. The only significant correlations that were found were between age and positive context change ($r = -.226$, $p < .001$) and between age and 3-month social support ($r = -.135$, $p = .041$; however I interpret this as a spurious finding because the significant relation did not exist for social support at baseline or six months; in fact, no other outcome variable at any time point was significantly associated with age). This result suggests that younger participants tended to report more positive context changes.

Latent Growth Curve Models

Analytic plan. Latent growth curve models (LGM) were used to fit trajectories charting change in social support, distress, and satisfaction with life, and to compare the trajectories of individuals reporting identity disruption to those not reporting identity disruption. LGM is a form of structural equation modeling, which involves estimating parameters, such as intercept and linear slope, in order to define trajectories of latent growth in observed variables (Singer & Willett, 2003; Tomarken & Waller, 2005). The general approach involves creating several models and selecting the one that best balances fit with parsimony.

I developed four models to describe the relations between identity disruption and four main outcomes of interest: social support, PTSD symptoms, satisfaction with life, and reintegration difficulty (see Table 5 for descriptive statistics for each outcome at each time point). Because these outcomes were only measured at three time points, it was only possible to create models estimating an intercept and linear slope (as opposed to other functional forms). For each outcome, I began by fitting an unconditional model, with no covariates. I then created a model including identity disruption as a predictor, to determine whether identity disruption meaningfully explained any of the variation in trajectories for each outcome. Finally, I fit models including identity disruption, coded mental-health concerns, and context change as predictors, to control for the potential effects of coded mental-health concerns and context change, and to distinguish these effects from those of identity disruption.

Fit statistics, including the AIC (Akaike Information Criterion), BIC (Bayesian Information Criterion), chi-square tests of model fit, RMSEA (Root Mean Square Error of Approximation), CFI (Comparative Fit Index), and SRMR (Standardized Root Mean Square Residual) were used to identify the best fitting model. These fit statistics are reported in Table 6. I used existing guidelines for interpreting model fit statistics to determine which model fit best (e.g., Hooper, Coughlan, & Mullen, 2008; Hu & Bentler, 1999; Schreiber, Nora, Stage, Barlow, & King, 2006). For the comparative fit statistics AIC and BIC, lower values indicate better fit. For the chi-square test, a non-significant finding at $p < .05$ indicates good model fit (though, see Hooper et al., 2008, for a discussion of problems regarding sensitivity of this test; namely, that a significant test result is almost always obtained when sample size is large). RMSEA values should be less than .06, with a confidence interval that reaches close to zero on the low end, and not larger than .08 on the high end. For CFI, values greater than or equal to .95 are considered a good fit. For SRMR, values less than .08 are considered acceptable. I examined the pattern of results across these six fit indices for each model, and selected the unconditional form that resulted in the most favorable fit overall (i.e., better results on at least four of the six indices). In cases where the fit indices did not clearly favor one model over another, I ran and reported models using both the constant and linear functional forms.

A very small proportion of the data was missing for each of the outcomes (a maximum of 5.7% in any of the waves; see Table 5). The software used for these

analyses, Mplus 7 (Muthén & Muthén, 2012), uses full information maximum likelihood estimation by default to account for missing data.

Below, I report the final model results obtained for social support, PTSD symptom severity, satisfaction with life, and reintegration difficulty. Tables 7 through 10 include complete parameter estimates for all models.

Social support. Fit statistics indicated that the unconditional linear model provided a better fit for the data than the unconditional constant model (see Table 6), and so a linear functional form was chosen for the baseline model (I = 2.654, S = -.001)[4]. On average, participants' level of social support was rated between "Neither agree nor disagree" and "Somewhat agree," with very little change over time.

I first ran a model including only identity disruption as a predictor, to test whether identity disruption is associated with differences in social support intercept or slope (see Table 7). No significant differences in these parameters were detected between those who reported identity disruption and those who did not (I_{NONE} = 2.684, p <.001; I_{DIS} = 2.623, p >.05; S_{NONE} = .029, p >.05, S_{DIS} = -.030, p >.05; see Figure 3).

I then added expressed mental-health concerns, positive context change, and negative context change as predictors, to control for the effects of these variables and to determine whether they might account for any effects of identity disruption. Adding

[4] The variance in slopes for social support and PTSD symptom severity were both nonsignificantly different from zero (see Tables 7 and 8), suggesting that all individuals in the dataset grew at the same rate over time. However, even if the variance in slopes is not significant with no covariates in the model, including covariates can increase power to detect slope variability, and thus reveal significant relations between covariates and slopes (Muthén, 2002). Therefore, I proceeded with the linear models even though slope variance was minimal. This approach did, in fact, yield some significant findings for relations between covariates and slopes.

these covariates to the model did not result in significant changes to the parameters for identity disruption (see Table 7). Significant associations were found between the intercept and mental-health concerns, positive context change, and negative context change. Specifically, greater severity of mental-health concerns reported in participants' responses was associated with lower initial levels of social support. More positive context changes were associated with higher initial levels of social support. Also, more negative context changes were associated with lower initial levels of social support. Furthermore, positive context changes were significantly associated with slope, such that individuals with more positive context changes tended to increase their level of social support over time at a greater rate.

PTSD symptoms. Fit statistics for models of PTSD symptom severity indicated that the unconditional linear model provided a better fit than the unconditional constant model (see Table 6), so I chose a linear functional form for the baseline model ($I = 1.296$, $S = -.027$). Participants reported an average PTSD symptom severity falling between the scale points corresponding to "A little bit" and "Moderate," with small decreases over time.

As for social support, I started by modeling trajectories of PTSD symptom severity over time using only identity disruption as a predictor (see Table 8). The intercept for individuals reporting identity disruption was significantly higher than for individuals not reporting identity disruption ($I_{NONE} = 1.171$, $p < .001$; $I_{DIS} = 1.426$, $p < .05$; see Figure 4). No significant differences were detected for slope ($S_{NONE} = -.046$, $p > .05$; $S_{DIS} = -.008$, $p > .05$).

When including mental-health concerns and context change, the relation between identity disruption and intercept was no longer significant. Instead, the intercept was significantly associated with mental-health concerns and positive context change. Not surprisingly, baseline PTSD symptom severity was greater for participants whose narratives reflected more severe mental-health concerns. PTSD symptom severity was also lower, the more positive context changes that participants reported. Positive context change was also associated with slope, with participants with more positive context changes tending to decrease in PTSD symptom severity more rapidly over time.

Satisfaction with life. The fit statistics for models of satisfaction with life did not clearly indicate whether a constant or linear model provided better fit, and so I ran both sets of models (see Table 6). The intercept-only unconditional model indicated that participants reported an average level of satisfaction with life corresponding closest to the neutral scale point ("Neither agree or disagree"), with slight increases over time (for the constant model, I = 3.139; for the linear model, I = 3.104, S = .041). Including slope in the model did not reveal any significant findings that were not already apparent from the constant models, so here I report only the results of the constant models (though parameters for all models are reported in Table 9).

When including only identity disruption as a predictor, the intercept was significantly lower for individuals reporting identity disruption than for those not reporting identity disruption ($I_{NONE} = 3.333$, $p < .001$; $I_{DIS} = 2.942$, $p < .05$; see Figure 5). Individuals who indicated identity disruption in their narratives seemed to have lower levels of life satisfaction.

However, as with PTSD symptom severity, when mental-health concerns and context change were added as covariates, the effects of identity disruption were no longer significant. Rather, expressed mental-health concerns were negatively related to satisfaction with life, positive context change was positively related to satisfaction with life, and negative context change was negatively related to satisfaction with life.

Reintegration difficulty. As with satisfaction with life, the fit statistics for reintegration difficulty did not conclusively point to one functional form over the other, and so I report the results of both constant and linear models (see Table 6 and Table 10). The constant unconditional model indicated that participants reported, on average, between "a little difficulty" and "some difficulty" with the reintegration transition, with little change over time (for the constant model, I = 1.366; for the linear model, I = 1.373, S = -.005). The linear models did not reveal any results that differed significantly from the constant models, so here I report only the results of the constant models (though again, parameters for all models are reported in Table 10).

For the model that included only identity disruption as a predictor, identity disruption was positively associated with reintegration difficulty ($I_{NONE} = 1.194$, $p < .001$; $I_{DIS} = 1.540$, $p < .01$; see Figure 6). The average level of reintegration difficulty was higher for individuals who described identity disruption in their responses.

However, once mental-health concerns and context change was included in the models, this association was no longer significant. Instead, mental-health concerns were positively associated with reintegration difficulty. Furthermore, positive context changes

were associated with less reintegration difficulty, and negative context changes were associated with more reintegration difficulty.

Post-Hoc Analysis

Latent growth curve models incorporating context continuity. In addition to context change, I also coded for categories of context continuity. Though I did not have specific hypotheses or research questions related to context continuity, it is plausible that elements of one's context that remain the same across a transition – such as stable relationships or jobs – may balance out the effects of context changes or identity disruption, and that stability may protect against negative psychosocial outcomes. Valence may be important as well: elements of the context that remain stable, but are perceived as negative, may do more harm than good. I explored these possibilities by running the final latent growth curve models for social support, PTSD symptoms, satisfaction with life, and reintegration difficulty, and adding positive and negative context continuity as covariates in the model. The results of these models are reported in Table 11. Here, I discuss any substantial differences in the models that emerged when context continuity was added as a predictor.

For social support, expressed mental-health concerns and negative context change remained significantly inversely associated with social support. However, when context continuity was added, the coefficient for positive context change was no longer significant, suggesting that the relation between positive context change and social support may be accounted for by positive context continuity. Indeed, positive context

continuity was significantly associated with intercept, such that individuals reporting more positive context continuity experienced a higher initial value of social support.

For PTSD symptom severity, none of the intercept coefficients changed substantially when context continuity was added to the model. PTSD symptom severity was still significantly associated with expressed mental-health concerns and positive context change. However, there was a difference in coefficients for slope. Specifically, when context continuity was excluded from the model, positive context change was significantly negatively associated with slope – individuals with more positive context changes experienced faster decreases in PTSD symptom severity over time. When context continuity was included in the model, the significant relation between positive context change and slope was eliminated. No significant effects of context continuity were found.

For satisfaction with life, I selected the constant model to build on, because the linear model did not reveal any significant effects for slope. The model including context continuity did not have any substantial changes in coefficients compared to the model without context continuity: mental-health concerns, positive context change, and negative context change were all still significantly associated with life satisfaction. In addition, positive context continuity was significantly associated with life satisfaction, such that individuals reporting more elements of positive context continuity had higher levels of life satisfaction.

Similar results were found for reintegration difficulty. The significant associations that existed for the model excluding context continuity (i.e., higher levels of

reintegration difficulty with more expressed mental-health concerns and negative context changes; lower levels of reintegration difficulty with more positive context changes) persisted for the model including context continuity. Furthermore, positive continuity was negatively related to reintegration difficulty: those who reported more ways in which their context remained positive and stable over time, tended to experience significantly lower levels of reintegration difficulty.

Relations between identity disruption and context change categories. Although the latent growth curve modeling revealed associations between identity disruption and several outcomes of interest (i.e., PTSD symptom severity, satisfaction with life, and reintegration difficulty), in all cases, these associations were eliminated once expressed mental-health concerns and context change were added as covariates in the model. Therefore, it appeared that context change might drive some of the effects that appeared to be attributable to identity disruption. To further explore the relation between context change and identity disruption, I conducted chi-square tests to determine which specific types of context change were most closely related to identity disruption in participants' written responses. As these tests were unplanned, I used a Bonferroni correction to adjust for multiple comparisons (nominal p value = .0028, or .05 divided by 18 tests). The results of these chi-square tests are reported in Table 12. The only context change category that was significantly associated with identity disruption was *negative lack of structure* ($\chi^2(1, N = 244) = 9.348$, $p = .002$, $v = .196$). Individuals who reported identity disruption were more likely than chance to also mention a negative lack of structure in civilian life compared to military life (adjusted standardized residual = 3.1).

Relations between identity disruption and context continuity categories. Similarly, I used chi-square tests to determine which, if any, categories of context continuity were associated with identity disruption (or a lack of reported identity disruption). As above, I used a Bonferroni correction to adjust for multiple comparisons (nominal *p* value = .004, or .05 divided by 12 tests). With this correction, no particular categories were significantly associated with identity disruption (see Table 13 for chi-square results).

Relations between identity disruption and expressed mental-health concerns. I used a chi-square test to explore the relations between identity disruption and the level of severity of mental-health concerns expressed in participants' narratives. Although a sizeable portion of both groups expressed severe mental-health concerns in their responses, the proportion was significantly greater for those reporting identity disruption (53%) than those not reporting identity disruption (35%; adjusted standardized residual = 3.3), $\chi^2(3, N = 244) = 14.204$, $p = .003$, $v = .241$). Full results of this test are reported in Table 14.

Discussion

The purpose of the present study was a) to describe and operationalize the construct of identity disruption, b) to examine the relations between identity disruption and social support, PTSD symptom severity, satisfaction with life, and reintegration difficulty, and c) to determine whether any of those associations persisted over and above participants' expressed mental-health concerns and changes in context. Below, I discuss the results for each of these research goals in turn, connecting the findings to relevant

literature. Because accurately interpreting the results of b) is contingent on the results of c), I have combined them into one section. I conclude by discussing the limitations of the present study and suggesting directions for future research.

Describing Identity Disruption

The qualitative coding process revealed several dimensions of identity disruption as reported by veterans, including feelings of loss of meaning and purpose; disconnection between one's past, present, and future selves; role dysfunction; and loss of self-worth. Participants who reported identity disruption tended to be younger on average than those who did not, with most ranging in age from their late 20's through 40's. Disruption was also quite common within this sample, with almost half of participants meeting the coding criteria for identity disruption. These results provide a valuable contribution to the identity development literature in outlining a new construct that is especially pertinent to adult identity development. This study demonstrated that identity disruption is a common and often distressing experience among veterans, and I propose that many of the dimensions of identity disruption found in this study may transfer to other life-changing events, such as loss of a job or immigration. Theoretical models for adult identity development are thinly conceptualized compared to models for adolescent identity development (Kroger, 2015; Marcia, 2002; Stephen et al., 1992), and most empirical work in this area has historically been done with adolescent and college samples (Carlsson et al., 2015; Schwartz, 2005). Identity disruption, as I have defined it, is unlikely to be observed early in life, because young people's identities are in flux and are not firmly entrenched enough yet to be disruptable. However, the 30's and 40's may be a

time when firm identity commitments made earlier in life are challenged, and individuals must find ways to cope with threats to their identity. Many participants in this study were still in the process of grappling with identity disruption, even years after they had returned from deployment, suggesting that disruption can have a powerful and lasting impact.

Identity disruption can be considered a failure of temporal identity integration, and provides a valuable extension to this growing subfield of identity research. Though temporal identity integration has been a relatively neglected part of Erikson's theory on identity development (Syed & Mitchell, 2015), research in this area has increased substantially in the last few years (e.g., Becker et al., 2018; Rutt & Lockenhoff, 2016; Sedikides et al., 2018; Solomontous-Kountouri & Hatzittofi, 2016). As scholars explore and define the construct of temporal integration, the full theoretical picture should include both the "light" and "dark" sides of temporal identity (Crocetti et al., 2016), and researchers should take care to study both adaptive and maladaptive temporal identity development. The present study demonstrates one possibility for what it means *not* to have temporal integration. As with other identity concerns (e.g., diffusion; Luyckx et al., 2005), there may be several subtypes of identity disruption, with some types causing more severe consequences than others. The qualitative results of this study suggest several of those potential subtypes of disruption. For example, I found that *loss of self-worth* captured a deep sense of negativity, self-doubt, and shame for many participants. It may be that this type of identity disruption is the most distressing and harmful –

especially when layered on top of a second type of disruption, such as *loss of meaning and purpose in life*, as was the case for many participants in this study.

Future research may validate the subtypes of identity disruption found in this study by, for example, conducting exploratory and then confirmatory factor analyses, comparing the empirically derived factors to the subtypes found through this qualitative study, and developing a model of identity disruption based on the subtypes that the evidence best supports. Luyckx and colleagues (2005; 2006; 2008) have employed similar strategies to explore the structure of Marcia's identity statuses, and to derive additional statuses that had not been originally theorized by Marcia. The list of captions generated in the present study (see Table 4) may serve as an appropriate starting point for such empirical construct-building. The captions could serve as items, and participants who have undergone a disruptive life event could rate the degree to which they feel each item applies to them. Participants could also complete measures of related psychosocial constructs (e.g., the Identity subscale of the Erikson Psychosocial Stage Inventory; Rosenthal, Gurney, & Moore, 1981; the Dimensions of Identity Development Scale; Luyckx et al., 2008; the Rosenberg Self-Esteem Scale; Rosenberg, 1965; the Center for Epidemiologic Studies Depression Scale; Radloff, 1977) to establish internal and external construct validity, and to explore the relations between identity disruption and psychosocial functioning. These steps, along with other psychometric work, may eventually lead to a reliable scale for ~~quantitatively~~ measuring identity disruption and its subtypes.

Relations between Identity Disruption, Social Support, and Mental Health, Considering Context Change and Continuity

Latent growth curve models were used to examine the relations between identity disruption and psychosocial outcomes, including social support, PTSD symptoms, satisfaction with life, and reintegration difficulty. Several meaningful patterns were illustrated through these analyses. First, relatively little change was observed in the psychosocial outcomes over time, suggesting that, at least at this point in the reintegration transition, most participants experienced a great deal of stability in their mental health and levels of social support. Second, identity disruption was associated with poorer outcomes in terms of PTSD symptoms, satisfaction with life, and reintegration difficulty – but only when it was the only predictor included in the model. Once other variables (expressed mental-health concerns and context change) were added, the effects associated with identity disruption were no longer significant, suggesting that the real driving forces behind apparent relations between identity disruption and psychosocial outcomes are context changes, and the severity of mental-health concerns expressed in participants' writing.

Most identity research does not examine these types of covariates to determine whether they could account for the apparent effects of identity dynamics. Indeed, some would argue that all of these variables – identity disruption, context change, mental-health outcomes – are constituent parts of the broader construct of identity integration. For two reasons, I decided to set a relatively high bar for this study, teasing each of these components apart. First, I wanted to know what impact the internal experience of

identity disruption might have over and above the concrete contextual changes that veterans undergo in their reintegration transition. It is plausible that context changes could occur *without* causing identity disruption (as was the case in these data), and so it is reasonable to distinguish the psychological experience of identity disruption from the context changes that may trigger it. Second, I wanted to see whether I could separate the construct of identity disruption as expressed in participants' writing, from other, more widely studied mental-health constructs. As with context change, identity disruption and expressed mental-health concerns did not entirely overlap in this study. I discuss this further below. Breaking identity integration down into these constituent parts allowed me to examine their unique influences on psychosocial outcomes.

Despite the clear evidence of identity disruption and its painful consequences in the qualitative data, the quantitative analyses did not support the hypothesis that identity disruption would have an effect on social support and mental health that could not be accounted for by context changes and expressed mental-health concerns. If anything, context changes seemed to have a meaningful, direct impact on social support and mental health, which overshadowed any effects of identity disruption. Further research on identity disruption and other aspects of identity should include other related constructs, such as characteristics of the context, personality traits, and measures of mental health, to test the ~~hypothetical~~ contribution of identity constructs over and above other frequently studied psychosocial constructs.

The results of the latent growth curve models provide information on the associations among constructs theoretically related to identity disruption, including

context change and continuity, social support, and mental-health outcomes. For example, both positive and negative context changes were related to social support and mental-health outcomes. However, for PTSD symptoms, satisfaction with life, and reintegration difficulty, the effects of positive context changes were stronger than the effects of negative context changes. Furthermore, *positive* context continuity—and not *negative* continuity—was significantly related to social support and mental health. Overall, the results suggest that maximizing *both* positive context change and positive context continuity is beneficial for mental-health outcomes. What's most important is the valence, rather than the degree of continuity. Although the literature on temporal identity integration doesn't necessarily take the stance that valence of experiences does not matter, it does focus primarily on the importance of continuity (Syed & Mitchell, 2015). These results suggest that as research on temporal identity advances, it is important to consider the characteristics of the life experiences that individuals are faced with, which must then be integrated into the life story. For example, a person experiencing many changes in their work and relationships may not necessarily experience any detrimental consequences to their identity, as long as those changes are perceived as positive. McLean and Syed (2015) discuss how cultural context can place constraints that limit or promote individuals' agency in narrative identity development. Similarly, the actual facts of an individual's transition experience can constrain or promote an individual's ability to establish temporal continuity; some aspects of context, especially negative ones, may require more of a "stretch" to maintain integration.

Expressed mental-health concerns, capturing the degree of severity of mental-health issues that participants explicitly indicated in their writing, were also significantly associated with all outcomes, especially PTSD symptom severity, satisfaction with life, and reintegration difficulty. This is hardly surprising, given that participants who wrote about mental illness in their narratives should be expected to indicate symptoms of mental illness in the quantitative survey. What was surprising is that our codes for identity disruption did not appear to account for any additional variation in outcomes that wasn't already captured by the codes for mental-health concerns. As reported in Table 14, many participants who did not report identity disruption were coded as reporting mild, moderate, and severe mental-health concerns, and conversely, many individuals reporting identity disruption did not report mental-health concerns. These results suggest that identity disruption could be detected in the absence of expressed mental illness. In other words, this isn't simply a methodological issue of our identity disruption codes replicating or excessively overlapping with the codes for expressed mental health.

However, post-hoc chi-square tests do suggest a significant relation between identity disruption and expressed mental health; severe expressed mental health was significantly more common for those reporting identity disruption. This result is consistent with theory, because identity disruption is expected to contribute to poor mental health, and so they should be strongly associated (as many other identity constructs are; Chandler et al., 2003; Hatano et al., 2016; Marcia, 1980; 1993; Morsünbül et al., 2016; Syed & McLean, 2016; Sokol & Eisenheim, 2016; Van Hoof & Raaijmakers, 2002). However, these results also raise questions as to the distinction between identity

disruption and mental-health concerns. Indeed, some mental illnesses explicitly include problems with identity and the self as symptoms (e.g., borderline personality disorder, Westen, Betan, & DeFife, 2011; Wilkinson-Ryan & Westen, 2000; depression, Harter, 1999; American Psychological Association, 2000). Disentangling mental illnesses from the constructs that theoretically contribute to them is a persistent challenge in psychological research (for example, see Sowislo & Orth, 2013, for a review of the relation between depression and self-esteem). Further research may shed light on the relation between identity disruption and mental illness by disentangling the direction of effects. I propose that certain context changes—especially major life transitions—can cause identity disruption, which in turn causes persistent poor mental health, until an integrated identity is reformed. Longitudinal, quantitative data measuring both identity disruption and mental-health concerns, that is collected before, during, and after a disruptive event (unlike the data in the current study, which assess identity disruption retrospectively), would permit testing of my proposed model.

An important consideration when interpreting these results is that the data were collected in the context of an expressive writing intervention intended to improve psychosocial outcomes for veterans (Sayer et al., 2015). The writing intervention adapted methods developed by Pennebaker (2013) that have been successfully applied in many different situations, and have consistently shown positive effects in coping with trauma and stress (Frattaroli, 2006). The participants in the current study are a subsample of those who were randomly assigned to the experimental condition of the parent intervention. Compared to those in the control conditions, the participants in the

experimental condition tended to experience greater reductions in PTSD symptoms and reintegration difficulty over the course of the study. It is possible that the act of participating in the writing intervention itself may have attenuated negative outcomes and promoted positive outcomes for this sample, in a way that could obscure the effects of identity disruption. On the other hand, the writing assignment also encouraged participants to process and make meaning of their experiences (McAdams & McLean, 2013; McLean, Pasupathi, & Pals, 2007), and through that reflective process of narrative construction, aspects of identity disruption may have come to the surface that might not have otherwise been detected. While the intervention provided a unique opportunity to explore identity disruption in a clinically relevant context, further research examining identity disruption using more focused data is warranted.

A strength of the current study is the degree of specificity of codes for context change and continuity, which permitted post-hoc analyses testing the relations between identity disruption and specific types of context change and continuity. These analyses revealed that individuals reporting *lack of structure*, within the broader category of negative context change, were significantly more likely to report identity disruption as well. Lack of structure reflects participants' observation of broad cultural differences between military and civilian life: a lack of predictability, routine, rules, and order, that about 21% of the sample found difficult to manage. This finding highlights the connection between personal identity and cultural identity (Syed, 2017). Reintegration into civilian life, especially for veterans serving in roles that take them away from their home culture, may be considered a kind of acculturation, or adjustment to a different

culture from the one previously inhabited. Certainly, several participants in the sample expressed feeling caught "between two worlds," a metaphor commonly used to describe the experiences of immigrants attempting to reconcile their home and host cultures (Berry, Phinney, Sam, & Bedder, 2006; Das & Kemp, 1997; Gyberg, Syed, Frisen, Wangqvist, & Svensson, 2018; Syed, 2017). Established theory on acculturation suggests several possible strategies for dealing with that feeling of being caught between worlds, depending on the strength of identification with the home or host culture (Berry, 1980). Although this model is typically applied to transnational immigration, it may be applicable for understanding individuals' adjustment to other forms of culture, such as military or civilian culture. Empirical work suggests that the most adaptive of Berry's (1980) strategies is *integration*, or maintaining strong ties to one's home culture while also becoming deeply involved in the new host culture (Nguyen & Benet-Martinez, 2013; Yoon et al., 2013). However, veterans who emphasized lack of structure might be adopting a less-adaptive *separation* strategy, consisting of strong ties to the home (military) culture, but weak ties to the new (civilian) culture[5]. Scholars have pointed to a need to return to the sociocultural perspective that Erikson (1968) took, and to integrate the literatures on identity and culture (Syed, 2017; Schwartz, 2005). Further research on identity disruption as a consequence of immigration and other changes in cultural context may facilitate that integration.

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[5] This discussion of acculturation is complicated by the fact that veterans often are returning to a previously occupied culture, and so are more like repatriates than immigrants. While Sussman (2002) has proposed a model differentiating the processes of acculturation to a new culture from re-acculturation to one's own home culture, empirical work has suggested that Berry's (1980) model is more accurate to repatriates' lived experiences than Sussman's (Tannenbaum, 2007).

Limitations and Future Directions

The present study was limited in several ways. The first set of limitations centers on issues with the identity disruption variable generated through the coding process. Because identity disruption was coded from open-ended, written qualitative responses, there is no way to distinguish those participants who did not experience identity disruption from those who did, but did not report it. Furthermore, our coding captured identity disruption through a single, binary variable. These factors may have limited power to detect effects of identity disruption, as our coded data likely underestimates the number of participants who in fact experienced identity disruption, and also reduces the variability in participants' experiences by dichotomizing a complex construct. There are also likely variables that influence how likely a participant was to report identity disruption in their writing, such as personality traits. For instance, research on traits and language use suggests that individuals with higher neuroticism are more likely to express negative emotions in written narratives (Ireland & Mehl, 2014). Thus, our codes for identity disruption probably do not perfectly capture the underlying construct, but likely incorporate this kind of "noise" as well. Future research could avoid these problems through qualitative assessment that more directly assesses and probes for identity disruption (e.g., through interviews that ask participants explicitly about the consequences of disruptive events for their sense of self), or through psychometrically sound, multidimensional, quantitative measures of identity disruption. As no measure currently exists, this is an important next step for future research on identity disruption.

Another limitation of the present sample is that it only includes individuals who reported at least some difficulty in their reintegration transition. As 56% of the veterans screened for the parent study reported no reintegration difficulty, the present sample over-represents those veterans who have had more difficulty and negative experiences in their reintegration transition, and excludes those who may have had a smoother~~, easier~~ transition. Therefore, the frequencies of identity disruption, mental-health concerns, negative context changes, and so on, that are reported here should not be expected to generalize to all veterans. Furthermore, the present study may overemphasize the distress and harm associated with identity disruption. For example, although we approached the data without strong assumptions about the valence of identity disruption[6], we found no instances of positive identity disruption in this sample. It is imaginable, however, that an individual could experience an externally triggered, abrupt, deep change in his or her sense of self that is perceived as positive. For example, many parents report a deeply felt change in their identities upon the birth of their first child, and welcome their new role as a parent (Darvill et al., 2010). Any potential positive identity disruption that veterans might experience could have been suppressed by the exclusion criteria for the present study. Further research should explore identity disruption among diverse samples, to fully capture the breadth of experiences that can lead to disruption, and the potential range of consequences for psychosocial functioning.

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[6] There is certainly precedent in the identity literature for non-integrated identity states that are perceived as positive by the individual experiencing them, such as the *thrill of dissonance* identity configuration noted by Schachter (2004).

A third limitation of the present study is the long time since deployment for most participants. On average, participants began the study six years after returning from their most recent deployment. In some ways, this facilitated investigation of identity disruption, because participants had time to digest their experiences and to observe the long-term consequences of reintegration for their lives and identities. However, it also meant that participants were more distant from the time of disruption, and may not have accurately remembered how they felt at the time, or may have overcome feelings of disruption that could have existed closer to their return. Ultimately, a true test of the proposed causal model (in which external events cause identity disruption, which then causes poorer mental health and functioning) would ideally use longitudinal data collected before, during, and at multiple time points after a disruptive event.

These limitations are often a consequence of conducting secondary analyses with a dataset not originally intended to study identity disruption, per se. The next steps in exploring identity disruption should include studies designed to systematically establish the validity of the construct by, for example, testing whether identity disruption can be distinguished from traits like neuroticism, testing the proposed causal chain from disruptive events, to identity disruption, to psychosocial consequences, and examining identity disruption among diverse samples. If that research validates identity disruption as a meaningful construct distinct from other related constructs, then there are all kinds of interesting questions that can be examined with future research. Studies may be conducted to determine what kinds of events are more or less likely to cause identity disruption, what traits or characteristics of the individual make one vulnerable or resilient

to disruption, what intervention strategies are effective for addressing disruption, and so on. In addition, the coding process of the present study generated quite a bit of data that have not yet been fully examined, such as variables for self-change and self-continuity, and within-person data broken down to the writing session (versus participant) level. Although these data are not directly pertinent to the research goals of this current study, they offer opportunities for further research investigating, for instance, differential effects of identity disruption versus other forms of self-change; effects of self-change and self-continuity on mental-health outcomes; and within-person change and stability across the four writing sessions. Therefore, in addition to accomplishing the specific research goals of this study, the variables extracted in my coding process provide opportunities to further explore interactions between the self and context in veterans' reintegration experiences.

Conclusion

Despite the limitations discussed above, the present study demonstrates that identity disruption is a common and distressing experience for veterans returning from deployment, and suggests that disruption may be a useful construct for studying identity development in mid-life. The findings provide a detailed illustration of what the experience of identity disruption is like for veterans undergoing the reintegration transition, and raise questions as to the meaning of identity disruption in relation to concrete, external context changes and stability, as well as the causal relations between identity dynamics and mental health. By taking advantage of existing rich, high-quality data from an intervention trial, this secondary analysis has opened the door for future

research on identity dynamics in mid-life that is much needed in the developmental literature.

Table 1. *Participant Demographics*

Category	N	%	Mean	SD
Sex				
Male	145	59.4	-	-
Female	99	40.6	-	-
Ethnicity				
Not Hispanic	210	86.1	-	-
Hispanic	34	13.9	-	-
Race				
White	162	66.4	-	-
Black	35	14.3	-	-
Asian	7	2.9	-	-
Multiracial	9	3.7	-	-
Native American	3	1.2	-	-
Unknown	28	11.5	-	-
Degree				
GED or High School Diploma	15	6.1	-	-
Some college or post high school training	94	38.5	-	-
College Diploma	89	36.5	-	-
Advanced degree	38	15.6	-	-
Other	8	3.3	-	-
Income				
$0-$10 000	10	4.1	-	-
$10 000 to $20 000	19	7.8	-	-
$20 000 to $40 000	61	25.0	-	-
$40 000 to $60 000	45	18.4	-	-
More than $60 000	91	37.3	-	-
Missing/Prefer not to answer	18	7.4	-	-
Parenthood				
Has no children	75	30.7	-	-
Has children	169	69.3	-	-
Marital Status				
Never married/single	42	17.2	-	-
Married/partnered	156	63.9	-	-
Divorced/separated	46	18.9	-	-
Branch				
Army	133	54.5	-	-
Air Force	46	18.9	-	-
Navy	38	15.6	-	-
Marine	27	11.1	-	-
Rank				
Enlisted	190	77.9	-	-
Officer	49	20.1	-	-
Warrant	5	2.0	-	-

Component				
Active Duty	134	54.9	-	-
Reserves/National Guard	98	40.2	-	-
Other	12	4.9	-	-
Age	-	-	38.78	10.60
Deployments	-	-	1.10	1.065
Time Since Deployment	-	-	6.23	2.510

Table 2. *Coding Category Descriptions and Illustrative Quotes*

Broad Category	Specific Category	Description	Illustrative Quotes
Context Continuity	Work Continuity	The participant discusses returning to an old civilian job that he or she used to have before deployment, or discusses how a current job is similar to his or her military work in some meaningful way (uses similar skills, involves still working with service members, etc.).	"So, anyway, I now work for a Navy Command basically doing the same thing that I was doing in the Military. They understand me, I understand them, the jargon was not a problem to learn because I already new it."
	Friends Continuity	The participant discusses keeping in touch with friends from the military, or interactions with a group of friends that he or she had before deployment.	"Thank God for my battle buddy who kept me sane and who helped me thru these times."
	Family Continuity	The participant discusses aspects of his or her family relationships or structure that have stayed the same over time, as a source of continuity and often stability. Does not include partners/spouses, but does include parents, children, siblings, aunts, uncles, etc.	"I give my family all of the credit for keeping things with my kids as normal as possible while I was gone esp with school & family gatherings."
	Partner Continuity	The participant discusses aspects of his or her relationship with a romantic partner or spouse that has stayed the	"Then the hardest part was talking to my wife about it...She had been with me for about 24 years of my military career and she had never express her emotions but she did that day."

		same over time, as a source of continuity and often stability.	
	Transitional Programs	The participant mentions using a program or service intended to help veterans transition to civilian life.	“Additionally, my unit's family readiness group ensured I attend a yellow ribbon event to help with the transition from military to civilian & things either i could do or my family could do to help ease the transition.”
	Continued Military Involvement	The participant has maintained involvement in military service or culture - through continuing to serve part-time (e.g., in the National Guard or Reserves), through continued close contact with other service members (e.g., as a military spouse; through work), participation in veterans’ organizations, continuing a military career, or other regular involvement with military culture.	“WHen thinking about return after deployment, at least I will still in the Reserves, which helped because I was connected with people and a world I understood and who understood me.”
Context Change	Work Change	The participant discusses noticeable changes in his or her work environment (e.g., coworkers treat the participant differently; job responsibilities have changed), or has gotten a new job, or has been unemployed for a meaningful amount of time, after deployment.	“After I got out of the military I was very anxious about finding a new job. Luckily I had found an opportunity fairly quickly, but despite having found a job fairly quickly, I didn't start working until about nine ten months after getting out.”
	Residence Change	The participant discusses moving to a different location from the place than	“it seems hopeless sometimes. i guess that is because when i got out of the military i moved

	where he or she was originally deployed from, or discusses the process of moving/relocating after deployment.	away from everyone i ever knew to a different part of the country where i didnt know anymore."
Friends Change	The participant discusses changes in his or her relationships with civilian friends (e.g., being treated differently by friends now that the participant is back home), or changes in relationships with military friends after deployment (e.g., losing touch now that they're not together), or discusses the death or loss of a friend during or after deployment.	"People that hadn't talked to me since I had been gone were forever lost as friends because they didn't know how to reapproach me - I was disappointed with many, angry at others."
Family Change	The participant discusses changes in family relationships, or changes in family structure (e.g., new baby, changes in custody, loss of parent) following deployment. Does not include changes related to partner (divorce, breakup, new relationship, etc.)	"It is very difficult reintegrating back into your family. They have been functioning for any number of months without you and now you have come home and you expect everything to be the same, but they know everything is not the same."
Partner Change	The participant discusses changes in his or her relationship with a romantic partner, or starting or ending a romantic relationship during or following deployment	"My wife had let everything go while I was deployed. She spent all the money, didn't pay bills, stopped talking to my friends and family, and gave up on me."

	Financial Change	The participant discusses changes in his or her financial situation or resources following deployment (e.g., making more or less money, taking on new major loans, suffering major financial setbacks).	"Because i will not be able to start collecting my military retirement for at least three years the retirement has taken a financial hit to my family."
	Health Services Change	The participant discusses changes in his or her health insurance or their level of access to healthcare (i.e., how easy it is for them to get treatment) following deployment.	"One of the biggest differences was choosing medical care plans and dental plans. The military could do a better job of focusing on this information during TAPS class. I had no idea what the difference between a PPO, HMO, FFS, etc was."
	Going to School	The participant discusses starting an educational program following deployment	"Going to school is really helping me right now, because I am given assignments that are due and it gives me a slight feeling of purpose."
	Lack of Structure	The participant notes the relative lack of structure or predictability in civilian life, compared to military life.	"Now after transitioning to civilian life I find it difficult everyday that there is no structure. It just seems like everyone does whatever they want with no consequences."
Self-change	Physical Change	The participant discusses a lasting physical change that has occurred to him or her during or after deployment (e.g., chronic injury, chronic illness or pain, weight gain)	"I have many joint issue, knees, back, neck. Years of parachute jumping, carrying heavy backpacks in the wilderness and physical conditioning training are hurting me."

	Heightened Awareness	The participant writes about feeling more aware of his or her surroundings as a result of being in the military.	"I feel comfortable going to different countries and not feeling hesitant, but I also know that I am always alert - that is another thing the military teaches you - stay alert don't be nieve. Be aware of your surroundings and be safe."
	Volatility	The participant discusses noticing feeling more angry, or emotionally unstable, or panicking more than before deployment.	"I still get angry at people for no particular reason but I keep it inside. Once or twice I explode at my wife but she understands that it is not aimed at her and she is very understanding."
	Withdrawal	The participant discusses noticing feeling more depressed, anxious, isolated, or withdrawn from society than before deployment.	"I mainly feel like I don't want to interact with anyone, most of the time I don't want to interact with my own family. I love my family but often feel like not wanting to be bothered."
	Lessons Learned	The participant discusses specific lessons, skills, or insights that he or she has gained from military service, or ways that he or she has grown or improved as a result of military service.	"I feel that my deployment made me more responsible. I feel like I'm better at my own job now. I feel like I take it more serious now."
Self-continuity	N/A	The participant discusses ways in which he or she has remained the same - traits or habits that have been maintained for a long time, that existed before deployment and continued after deployment. This may include traits that existed before and were intensified during deployment.	"I keep my pain to myself just because that is they way I am. I have always been this way."

Mental-health concerns	N/A	The participant mentions being diagnosed with a mental illness, being treated for mental illness, or the participant discusses experiencing symptoms of mental illness (e.g., hypervigilance, depressed mood, lack of motivation, anxiety or fears, difficulty sleeping, memory loss, substance abuse).	Mild: "I still have nightmares and seem to get stressed out for no apparent reason. I'm working on minimizing this issue with some success." Moderate: "I find myself not wanting to do anything unless someone forces me to or trys to force me. I have projects to do that I cant seem to get done. I dont want to work out like I did every day while over seas. Some days I feel drained and blah." Severe: "I went to the VA today and have placed on new meds. They believe I am bi-polor. This is a little hard to take in...This morning I was placed on new medicine. I'm having panic attacks that are getting worse. My mood swings are becoming so strong that I'm verbally abusive."
Identity Disruption	N/A	The participant discusses an acute, sudden change in his or her sense of self as a consequence of returning from deployment, or a deep loss of meaning, purpose, or direction in life resulting from ending their deployment.	Before deploying I was a teacher working on my EdD to teach others to be teachers or to teach math at the Jr College level. I can't seem to reconnect with that set of goals since returning...I feel damaged and unable to move on to whatever's next in my life (I've pursued multiple career paths so I'm used to the feelings of those changes). I feel un-directed and unable to grab onto the 'next big thing' for me. And unable to go back to my pre-deployment loves and goals.

Table 3. *Coding Category Statistics*

Broad Category	Specific Category	Kappa	Percent Agreement	Frequency		Proportion	
				Positive	Negative	Positive	Negative
Context Continuity	Work Continuity	1.00	100%	58	38	23.8%	15.6%
	Friends Continuity	1.00	100%	59	4	24.2%	1.6%
	Family Continuity	.803	93.3%	96	44	39.3%	18.0%
	Partner Continuity	.615	90.0%	60	25	24.6%	10.2%
	Transitional Programs	.787	96.7%	37	16	15.2%	6.6%
	Continued Military Involvement	.907	96.7%	93	46	38.1%	18.9%
Context Change	Work Change	.742	86.7%	50	162	20.5%	66.4%
	Residence Change	.885	96.7%	24	40	9.8%	16.4%
	Friends Change	.843	96.7%	8	100	3.35%	41.0%
	Family Change	.809	90.0%	41	119	16.8%	48.8%
	Partner Change	.927	96.7%	36	132	14.8%	54.1%
	Financial Change	.918	96.7%	9	96	3.7%	39.3%
	Health Services Change	.815	93.3%	5	45	2.0%	18.4%
	Going to School	.712	93.3%	47	28	19.3%	11.5%
	Lack of Structure	1.00	100%	5	51	2.0%	20.9%
Self-change	Physical Change	.769	90.0%	2	87	.8%	35.7%
	Heightened Awareness	.783	96.6%	5	26	2.0%	10.7%
	Volatility	.734	90.0%	0	125	0%	51.2%
	Withdrawal	.783	90.0%	0	121	0%	49.6%
	Lessons Learned	.634	93.3%	70	9	28.7%	3.7%
Self-continuity	Self-continuity	.901	96.7%	43	30	17.6%	12.3%

Mental-health concerns	Mental-health concerns	.898	93.3%	Mild: 19 Moderate: 46 Severe: 107	Mild: 7.8% Moderate: 18.9% Severe: 43.9%
Identity Disruption	Identity Disruption	.713	90.0%	121	49.6%

Table 4. *Captions for Identity Disruption Subcategories.*

Subcategory	Captions
Loss of meaning or purpose	I’m not contributing to anything meaningful.
	There is no larger purpose any more in my life.
	Nothing feels fulfilling any more.
	Everything I've been working toward is over.
	I feel like I'm searching for something – something is missing.
	I have no commitments or goals.
	I’m not making progress in life.
	I feel like I’m floating along from day to day.
Disconnection between past, present, and future selves	I feel stuck wanting to live in the past.
	I miss being the person I was during deployment.
	My future is really unclear now.
	I can't reconnect with prior goals.
	I feel a lack of direction.
	I can’t go back back to what I loved before deployment.
	It’s hard to readjust to who I was before.
	I want to escape my current life.
	I’ve had to give up on a big dream or goal.
	I never expected my life to look like this.
	I feel unable to move on.
	I’m having a hard time not living in the past.
	I feel stuck in the past.
	I still feel really hurt or heartbroken by something that happened years ago – I can’t let it go.
	I want to ignore the past or disconnect from the past.
	I feel cut off from my past life.
	I want my old life back.
	I feel like I have shed a skin.

	I feel like I am starting a new chapter full of blank pages, and I don’t know what to write.
	The way I feel about life is fundamentally different than it was before.
	I am not the person I used to be.
	I feel like I am living two lives that are disconnected from each other.
	I feel like I want to hide my past self.
Role dysfunction	I’ve done this role my whole life and I don’t know how not to.
	I worry I won’t make it as a [civilian, good parent, other role]
	I feel like others are forcing me into an identity I didn’t choose, or pigeonholing me.
	I’m not confident I'll find a place to fit in or a team to join.
	I feel in pain at having lost part of my identity.
	I am no longer treated like an expert.
	I persistently feel like I don’t fit into society.
	My skills/traits don’t carry over well into this new context.
	I’m having trouble functioning in this new context.
	I feel like I’m failing to fulfill my role expectations.
	I feel disillusioned about the group I was a part of, or the identity I used to hold.
	I feel like I've been stripped of my persona.
Loss of self-worth	I was important before, and now I’m not.
	My past accomplishments mean nothing now.
	I feel embarrassed at what my life is now.
	I'm limited in how high I can climb from here.
	The things I'm doing now are not as valuable as the things I did before.
	I feel like I don’t contribute to society any more.
	I'm not having the same kind of impact on society as I used to.
	I've peaked and there's nothing better on the horizon for me.
	I failed to earn the next step of my path.
	I’m not sure of my value as a person.
	My self-esteem is lower than it was before.
	I’m not sure what my life has amounted to.

	I feel down and sorry for myself. I feel like I’ve been demoted. I have no agency any more

Table 5. *Descriptive Statistics for Social Support, PTSD Symptoms, Satisfaction with Life, and Reintegration Difficulty*

Measure	Mean	SD	Proportion of Data Missing
Baseline Social Support	2.65	.63	0%
3-Month Social Support	2.65	.65	5.7%
6-Month Social Support	2.66	.70	4.1%
Baseline PTSD Symptoms	1.31	.94	0%
3-Month PTSD Symptoms	1.22	.94	5.3%
6-Month PTSD Symptoms	1.24	1.00	4.1%
Baseline Satisfaction With Life	3.09	1.46	0%
3-Month Satisfaction With Life	3.18	1.49	5.3%
6-Month Satisfaction With Life	3.19	1.53	4.1%
Baseline Reintegration Difficulty	1.38	.89	0%
3-Month Reintegration Difficulty	1.33	.93	5.7%
6-Month Reintegration Difficulty	1.36	.97	4.1%

Table 6. *Fit Indices for Latent Growth Curve Models*

Model	AIC	BIC	Chi square	RMSEA [CI]	CFI	SRMR
Social Support						
Unconditional constant	1050.75	1068.23	χ^2 = 6.38, *df* = 4, *p* = .17	.049 [.000, .118]	.994	.098
Unconditional linear	1050.37	1078.35	χ^2 = .008, *df* = 1, *p* = .93	.000 [.000, .054]	1.000	.001
Linear conditional on identity disruption	1049.79	1084.76	χ^2 = .93, *df* = 2, *p* = .63	.000 [.000, .101]	1.000	.009
Linear conditional on identity disruption, mental health, and context changes	1023.85	1079.80	χ^2 = 1.71, *df* = 5, *p* = .88	.000 [.000, .041]	1.000	.008
Constant conditional on identity disruption	1050.59	1071.57	χ^2 = 9.72, *df* = 6, *p* = .14	.050 [.000, .106]	.990	.080
Constant conditional on identity disruption, mental health, and context changes	1023.04	1054.51	χ^2 = 14.90, *df* = 12, *p* = .24	.031 [.000, .076]	.993	.053
PTSD Symptoms						
Unconditional constant	1280.98	1298.46	χ^2 = 10.93, *df* = 4, *p* = .03	.084 [.026, .146]	.990	.057
Unconditional linear	1279.30	1307.28	χ^2 = 3.26, *df* = 1, *p* = .07	.096 [.000, .221]	.997	.012
Linear conditional on identity disruption	1276.74	1311.71	χ^2 = 4.17, *df* = 2, *p* = .12	.067 [.000, .158]	.997	.010
Linear conditional on identity disruption, mental health, and context changes	1200.57	1256.53	χ^2 = 8.12, *df* = 5, *p* = .15	.051 [.000, .111]	.996	.009
Constant conditional on identity disruption	1277.36	1298.34	χ^2 = 12.79, *df* = 6, *p* = .046	.068 [.008, .120]	.990	.046
Constant conditional on identity disruption, mental health, and context changes	1200.40	1231.88	χ^2 = 21.95, *df* = 12, *p* = .04	.058 [.013, .096]	.987	.031
Satisfaction with Life						
Unconditional constant	2215.07	2232.56	χ^2 = 1.50, *df* = 4, *p* = .83	.000 [.000, .057]	1.000	.014
Unconditional linear	2219.79	2247.77	χ^2 = .22, *df* = 1, *p* = .64	.000 [.000, .132]	1.000	.006
Linear conditional on identity disruption	2218.19	2253.16	χ^2 = .25, *df* = 2, *p* = .88	.000 [.000, .061]	1.000	.005
Linear conditional on identity disruption, mental health, and context changes	2153.04	2208.99	χ^2 = 1.78, *df* = 5, *p* = .88	.000 [.000, .044]	1.000	.010
Constant conditional on identity disruption	2211.89	2232.87	χ^2 = 1.95, *df* = 6, *p* = .92	.000 [.000, .027]	1.000	.013

Constant conditional on identity disruption, mental health, and context changes	2141.66	2173.13	χ^2 = 4.40, *df* = 12, *p* = .98	.000 [.000, .000]	1.000	.014
Reintegration Difficulty						
Unconditional constant	1363.22	1380.70	χ^2 = 7.00, *df* = 4, *p* = .13	.055 [.000, .122]	.995	.055
Unconditional linear	1362.88	1390.86	χ^2 = .66, *df* = 1, *p* = .41	.000 [.000, .157]	1.000	.007
Linear conditional on identity disruption	1356.51	1391.48	χ^2 = 1.77, *df* = 2, *p* = .41	.000 [.000.122]	1.000	.009
Linear conditional on identity disruption, mental health, and context changes	1286.07	1342.02	χ^2 = 2.14, *df* = 5, *p* = .83	.000 [.000, .052]	1.000	.007
Constant conditional on identity disruption	1355.42	1376.41	χ^2 = 8.68, *df* = 6, *p* = .19	.043 [.000, .100]	.995	.045
Constant conditional on identity disruption, mental health, and context changes	1280.93	1312.40	χ^2 = 10.99, *df* = 12, *p* = .53	.000 [.000, .061]	1.000	.030

Table 7. *Parameter Estimates for Social Support Models.*

	Identity disruption as only predictor		Identity disruption, mental-health concerns, and context change as predictors	
	Coefficient	SE	Coefficient	SE
Fixed effects				
For intercept				
Intercept (no identity disruption)	2.684***	.055	2.920***	.094
Identity disruption	-.061	.078	.044	.078
Mental-health concerns	-	-	-.109***	.030
Positive context change	-	-	.082*	.033
Negative context change	-	-	-.054*	.024
For slope				
Intercept (no identity disruption)	.029	.024	.017	.042
Identity disruption	-.059	.034	-.057	.035
Mental-health concerns	-	-	.010	.014
Positive context change	-	-	.033*	.015
Negative context change	-	-	-.011	.011
Random effects				
Intercept	.276	.041	.240***	.038
Slope	.010	.018	.009	.017

Note. *** = $p < .001$, ** = $p < .01$, * = $p < .05$

Table 8. *Parameter Estimates for PTSD Symptomatology Models.*

	Identity disruption as only predictor		Identity disruption, mental-health concerns, and context change as predictors	
	Coefficient	SE	Coefficient	SE
Fixed effects				
For intercept				
Intercept (no identity disruption)	1.171***	.084	.767***	.131
Identity disruption	.255*	.119	.046	.109
Mental-health concerns	-	-	.340***	.042
Positive context change	-	-	-.135**	.046
Negative context change	-	-	.010	.033
For slope				
Intercept (no identity disruption)	-.046	.026	-.041	.046
Identity disruption	.038	.037	.026	.039
Mental-health concerns	-	-	.015	.015
Positive context change	-	-	-.036*	.016
Negative context change	-	-	.003	.012
Random effects				
Intercept	.789***	.086	.581***	.067
Slope	.039	.025	.042	.022

Note. *** = $p < .001$, ** = $p < .01$, * = $p < .05$

Table 9. *Parameter Estimates for Satisfaction with Life Models.*

	Constant				Linear			
	Identity disruption as only predictor		Identity disruption, mental-health concerns, and context change as predictors		Identity disruption as only predictor		Identity disruption, mental-health concerns, and context change as predictors	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Fixed effects								
For intercept								
Intercept (no identity disruption)	3.333***	.120	3.943***	.185	3.317***	.128	3.980***	.200
Identity disruption	-.391*	.171	-.064	.153	-.430*	.181	-.090	.165
Mental-health concerns	-	-	-.349***	.059	-	-	-.353***	.064
Positive context change	-	-	.383***	.065	-	-	.382***	.070
Negative context change	-	-	-.160**	.046	-	-	-.177***	.050
For slope								
Intercept (no identity disruption)	-	-	-	-	.018	.052	-.043	.092
Identity disruption	-	-	-	-	.045	.073	.030	.077
Mental-health concerns	-	-	-	-	-	-	.005	.030
Positive context change	-	-	-	-	-	-	.001	.032
Negative context change	-	-	-	-	-	-	.018	.023
Random effects								
Intercept	1.558***	.162	1.080***	.119	1.513***	.232	1.046***	.188
Slope	-	-	-	-	-.020	.097	.001	.085

Note. *** = $p < .001$, ** = $p < .01$, * = $p < .05$

Table 10. *Parameter Estimates for Reintegration Difficulty Models.*

	Constant				Linear			
	Identity disruption as only predictor		Identity disruption, mental-health concerns, and context change as predictors		Identity disruption as only predictor		Identity disruption, mental-health concerns, and context change as predictors	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Fixed effects								
For intercept								
Intercept (no identity disruption)	1.194***	.077	.720***	.118	1.217***	.078	.776***	.123
Identity disruption	.346**	.109	.115	.097	.317**	.111	.105	.102
Mental-health concerns	-	-	.271***	.038	-	-	.257***	.039
Positive context change	-	-	-.201***	.041	-	-	-.174***	.043
Negative context change	-	-	.093**	.030	-	-	.079*	.031
For slope								
Intercept (no identity disruption)	-	-	-	-	-.023	.027	-.059	.048
Identity disruption	-	-	-	-	.036	.039	.016	.040
Mental-health concerns	-	-	-	-	-	-	.014	.016
Positive context change	-	-	-	-	-	-	-.026	.017
Negative context change	-	-	-	-	-	-	.014	.012
Random effects								
Intercept	.671***	.066	.467***	.048	.632***	.079	.459***	.063
Slope	-	-	-	-	.028	.029	.026	.025

Note. *** = $p < .001$, ** = $p < .01$, * = $p < .05$

Table 11. *Parameter Estimates for Models Incorporating Context Continuity.*

	Social support		PTSD symptoms		Satisfaction with life		Reintegration difficulty	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Fixed effects								
For intercept								
Intercept (no identity disruption)	2.738***	.103	.847***	.149	3.549***	.199	.937***	.130
Identity disruption	.061	.075	.042	.109	-.015	.146	.098	.095
Mental-health concerns	-.087**	.030	.332***	.043	-.295***	.057	.245***	.037
Positive context change	.035	.034	-.118*	.049	.266***	.065	-.148**	.043
Negative context change	-.055*	.023	.013	.034	-.151***	.045	.097**	.029
Positive context continuity	.117***	.029	-.047	.042	.269***	.056	-.135***	.037
Negative context continuity	-.017	.038	-.017	.055	-.130	.074	-.003	.048
For slope								
Intercept (no identity disruption)	.001	.047	.002	.052	-	-	-	-
Identity disruption	-.054	.035	.025	.039	-	-	-	-
Mental-health concerns	.012	.014	.010	.015	-	-	-	-
Positive context change	.028	.073	-.028	.017	-	-	-	-
Negative context change	-.011	.011	.006	.012	-	-	-	-
Positive context continuity	.011	.013	-.024	.015	-	-	-	-
Negative context continuity	-.010	.018	-.018	.020	-	-	-	-
Random effects								
Intercept	.216***	.036	.579***	.067	.945***	.107	.440***	.045
Slope	.006	.017	.041	.022	-	-	-	-

Note. *** = $p < .001$, ** = $p < .01$, * = $p < .05$

Table 12. *Chi-Square Tests for Identity Disruption and Context Change Categories.*

Category	χ^2	*df*	*p*	*v*	No identity disruption	Identity disruption
Negative work change	8.356	1	.004	.185		
Not mentioned					52	30
Mentioned					71	91
Positive work change	.064	1	.801	.016		
Not mentioned					97	97
Mentioned					26	24
Negative residence change	.560	1	.454	.048		
Not mentioned					105	99
Mentioned					18	22
Positive residence change	.002	1	.966	.003		
Not mentioned					111	109
Mentioned					12	12
Negative friends change	1.318	1	.251	.073		
Not mentioned					77	67
Mentioned					46	54
Positive friends change	.001	1	.981	.002		
Not mentioned					119	117
Mentioned					4	4
Negative family change	3.204	1	.073	.115		
Not mentioned					70	55
Mentioned					53	66
Positive family change	.013	1	.909	.007		
Not mentioned					102	101
Mentioned					21	20
Negative partner change	2.825	1	.093	.108		
Not mentioned					63	49

Mentioned					60	72
Positive partner change	1.061	1	.303	.066		
Not mentioned					102	106
Mentioned					21	15
Negative financial change	.177	1	.674	.027		
Not mentioned					73	75
Mentioned					50	46
Positive financial change	.133	1	.715	.023		
Not mentioned					119	116
Mentioned					4	5
Negative health services change	2.392	1	.122	.099		
Not mentioned					105	94
Mentioned					18	27
Positive health services change	.221	1	.638	.030		
Not mentioned					121	118
Mentioned					2	3
Negative going to school	1.566	1	.211	.080		
Not mentioned					112	104
Mentioned					11	17
Positive going to school	1.437	1	.231	.077		
Not mentioned					103	94
Mentioned					20	27
Negative lack of structure	9.348	1	.002	.196		
Not mentioned					107	86
Mentioned					16	35
Positive lack of structure	.221	1	.638	.030		
Not mentioned					121	118
Mentioned					2	3

Note. The columns labeled “No identity disruption” and “Identity disruption” report observed counts of participants in each category.

Table 13. *Chi-Square Tests for Identity Disruption and Context Continuity Categories.*

Category	χ^2	*df*	*p*	*v*	No identity disruption	Identity disruption
Negative work continuity	.089	1	.766	.019		
Not mentioned					103	103
Mentioned					20	18
Positive work continuity	3.004	1	.083	.111		
Not mentioned					88	98
Mentioned					35	23
Negative friends continuity	.000	1	1.000	.001		
Not mentioned					121	119
Mentioned					2	2
Positive friends continuity	1.621	1	.203	.082		
Not mentioned					89	96
Mentioned					34	25
Negative family continuity	2.977	1	.084	.110		
Not mentioned					106	94
Mentioned					17	27
Positive family continuity	.177	1	.674	.027		
Not mentioned					73	75
Mentioned					50	46
Negative partner continuity	.065	1	.799	.016		
Not mentioned					111	108
Mentioned					12	13
Positive partner continuity	.931	1	.334	.062		
Not mentioned					96	88
Mentioned					27	33
Negative transitional program	2.514	1	.113	.102		
Not mentioned					118	110

Mentioned					5	11
Positive transitional program	1.699	1	.192	.083		
Not mentioned					108	99
Mentioned					15	22
Negative continued military involvement	2.885	1	.089	.109		
Not mentioned					105	93
Mentioned					18	28
Positive continued military involvement	4.582	1	.032	.137		
Not mentioned					68	83
Mentioned					55	38

Note. The columns labeled "No identity disruption" and "Identity disruption" report observed counts of participants in each category.

Table 14. *Chi-Square Tests for Identity Disruption and Expressed Mental-health concerns.*

	χ^2	*df*	*p*	*v*	No identity disruption	Identity disruption
Severity of expressed mental-health concerns	14.204	3	.003	.241		
None expressed					48	24
Mild					12	7
Moderate					20	26
Severe					43	64

Note. The columns labeled "No identity disruption" and "Identity disruption" report observed counts of participants in each category.

Figure 1. Recruitment and retention of participants.

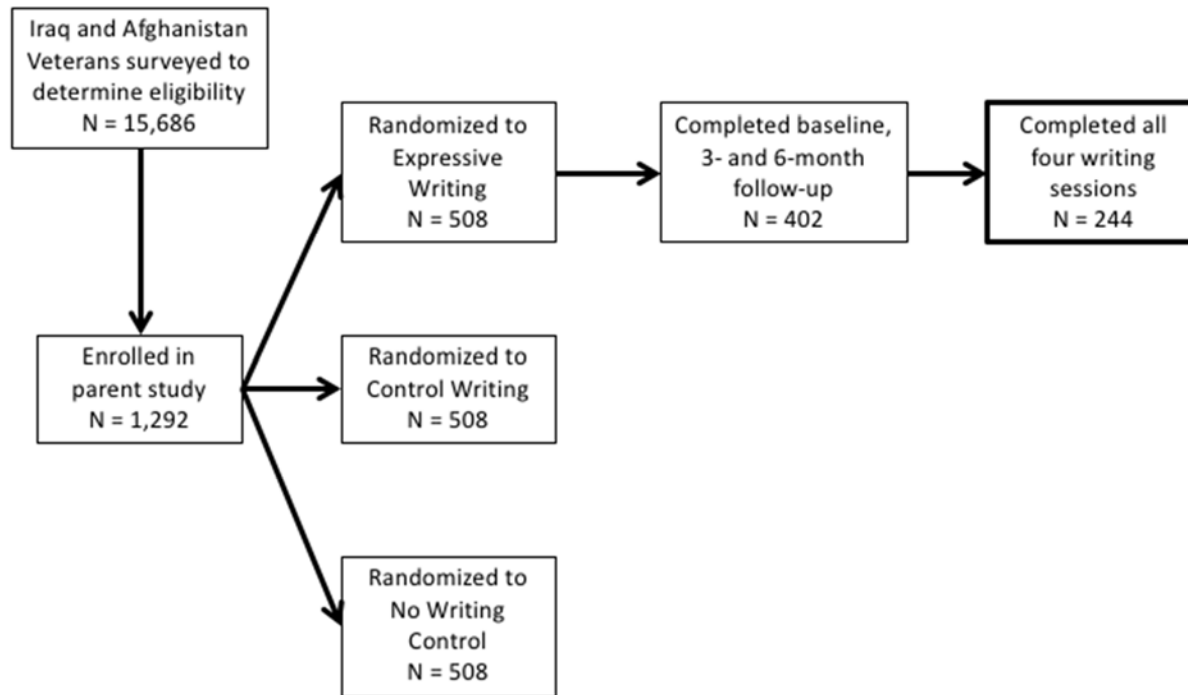


Figure 2. Histogram for identity disruption by age range.

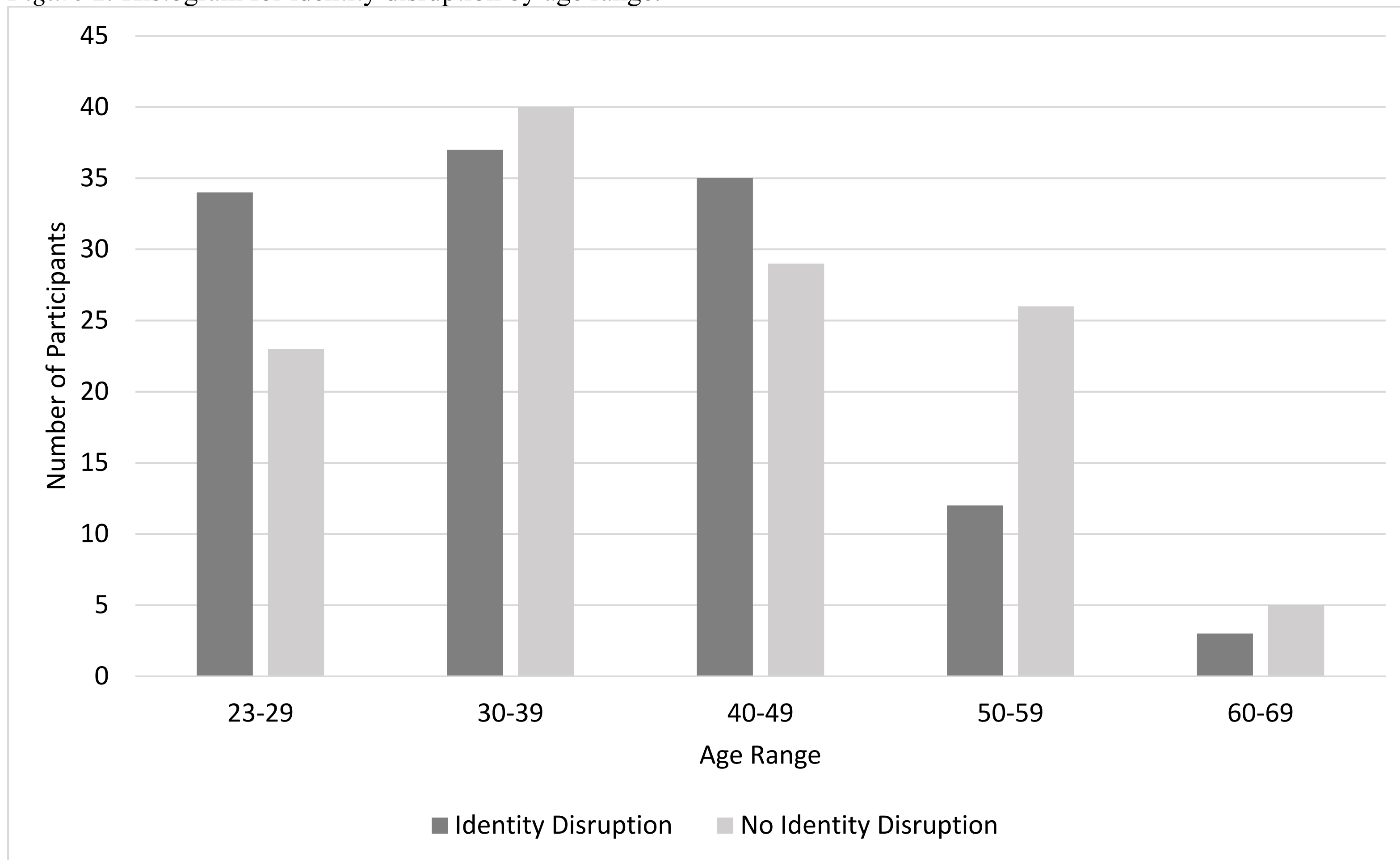
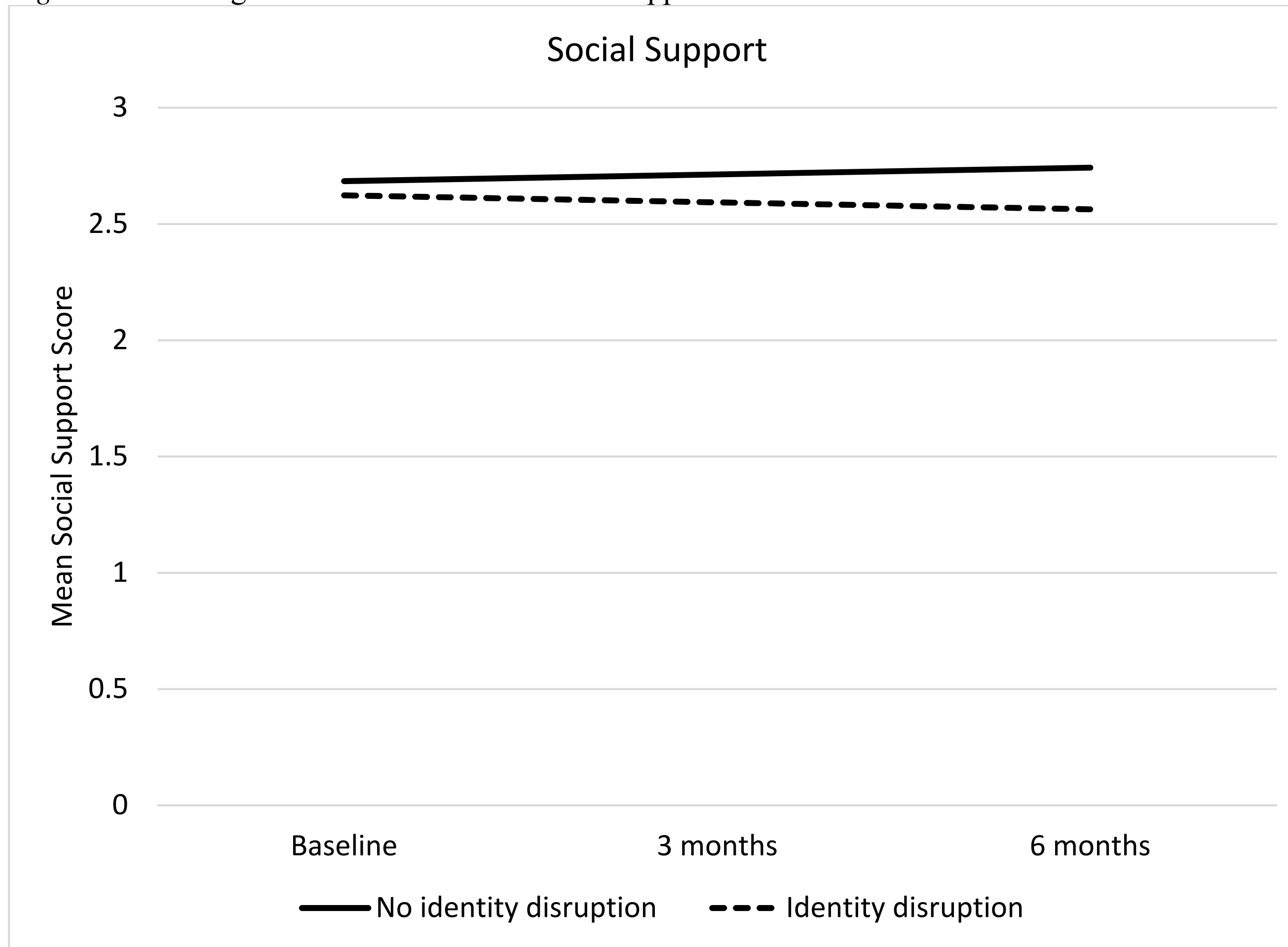
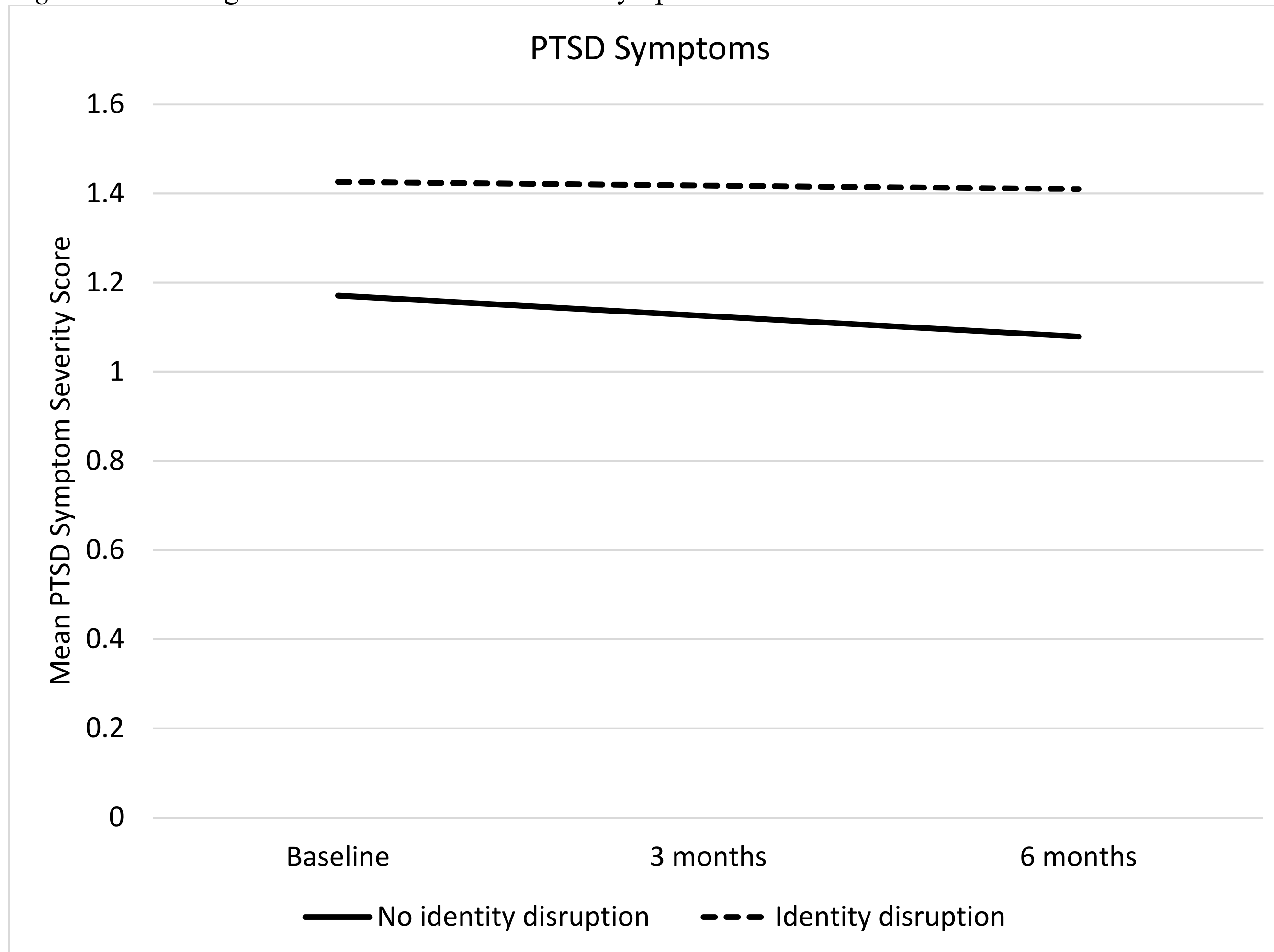


Figure 3. Latent growth curve model for social support.



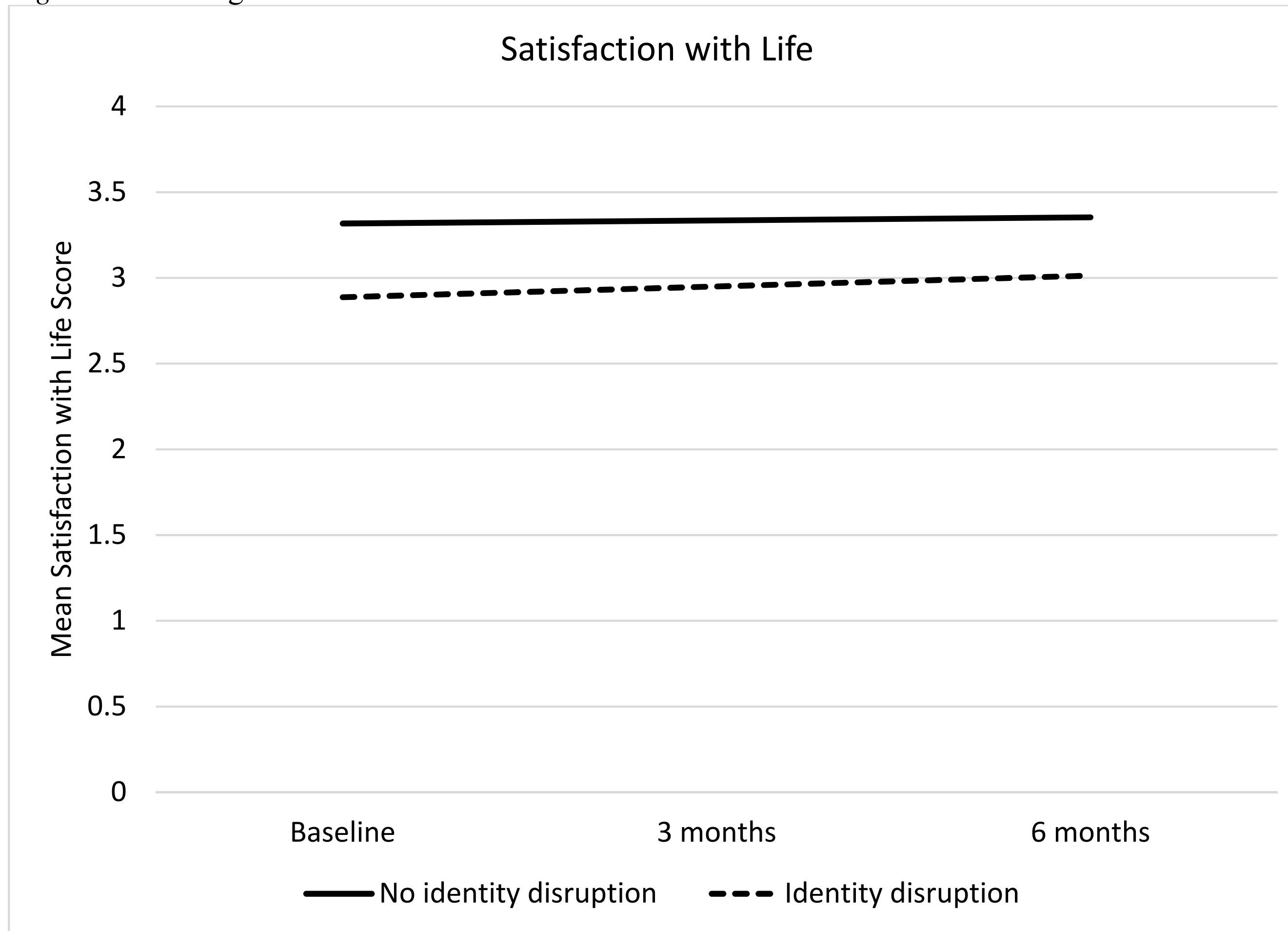
Note. Mean social support is measured on a scale of 0 (low) to 4 (high).

Figure 4. Latent growth curve model for PTSD symptoms.



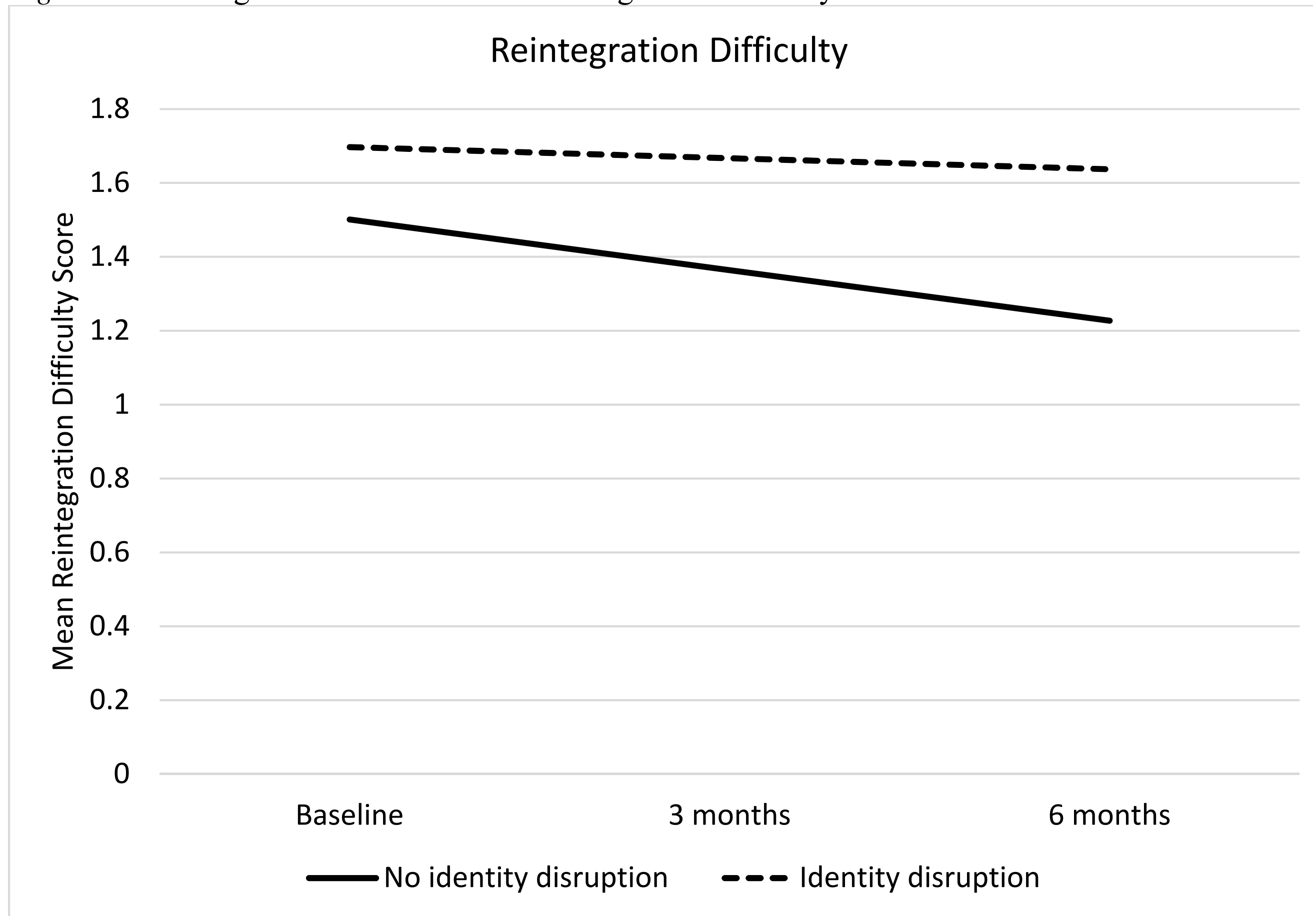
Note. Mean PTSD symptom severity is measured on a scale of 0 (low) to 4 (high).

Figure 5. Latent growth curve model for satisfaction with life.



Note. Mean satisfaction with life is measured on a scale of 0 (low) to 6 (high).

Figure 6. Latent growth curve model for reintegration difficulty.



Note. Mean reintegration difficulty is measured on a scale of 0 (low) to 4 (high).

Bibliography

Adler, J., Skalina, L., & McAdams, D. (2008). The narrative reconstruction of psychotherapy and psychological health. *Psychotherapy Research, 18*(6), 719-734.

Adler, J., (2012). Living into the story: Agency and coherence in a longitudinal study of narrative identity development and mental health over the course of psychotherapy. *Journal of Personality and Social Psychology, 102*(2), 367-389.

Antonucci, T., & Akiyama, C. (1987). An examination of sex differences in social support among older men and women. *Sex Roles*, *17*(11), 737-749.

Azmitia, M., Syed, M., & Radmacher, K. (2013). Finding your niche: Identity and emotional support in emerging adults' adjustment to the transition to college. *Journal of Research on Adolescence*, *23*(4), 744-761.

Baddeley, J., & Singer, J. (2010). A loss in the family: Silence, memory, and narrative identity after bereavement. *Memory*, *18*(2), 198-207.

Baerger, D. R., & McAdams, D. P. (1999). Life story coherence and its relation to psychological well-being. *Narrative Inquiry, 9*(1), 69-96.

Bauer, J., McAdams, D., & Dannemiller, James L. (2004). Growth goals, maturity, and well-being. *Developmental Psychology*, *40*(1), 114-127.

Baum, E. S., & Rude, S. S. (2013). Acceptance-enhanced expressive writing prevents symptoms in participants with low initial depression. *Cognitive Therapy and Research, 37,* 35–42.

Bearman, P., & Moody, J. (2004). Suicide and friendships among American adolescents. *American Journal of Public Health*, *94*(1), 89-95.

Becker, M., Vignoles, V., Owe, E., Easterbrook, M., Brown, R., Smith, P. B., . . . Lay, S. (2018). Being oneself through time: Bases of self-continuity across 55 cultures. *Self and Identity*, *12*(3), 276-293.

Benish-Weisman, M. (2009). Between trauma and redemption: Story form differences in immigrant narratives of successful and nonsuccessful immigration. *Journal of Cross-Cultural Psychology*, *40*(6), 953-968.

Berkman, L., & Syme, S. (1979). Social networks, host resistance, and mortality: A nine-year follow-up study of Alameda County residents. *American Journal of Epidemiology*, *109*(2), 186-204.

Berry, J. W. (1980). Acculturation as varieties of adaptation. In A.M. Padilla (Ed.), *Acculturation: Theory, models and some new findings* (pp. 9-25). Boulder, CO: Westview.

Berry, J. W., Phinney, J. S., Sam, D. L., & Bedder, P. (2006). Immigrant youth: Acculturation, identity, and adaptation. *Applied Psychology, 55*(3), 303-332.

Blanchard, E. B., Jones-Alexander, J., Buckley, T. C., & Forneris, C. A. (1996). Psychometric properties of the PTSD Checklist (PCL). *Behaviour Research and Therapy, 34*, 669–673.

Blazer, D. (1982). Social support and mortality in an elderly community population. *American Journal of Epidemiology*, *115*(5), 684-94.

Boals, A., & Ruggero, C. (2015). Event centrality prospectively predicts PTSD symptoms. *Anxiety, Stress, & Coping, 29*(5), 1-20.

Bookwala, J., Frieze, I., & Grote, N. (1994). The long-term effects of military service on quality of life: The Vietnam experience. *Journal of Applied Social Psychology*, *24*(6), 529-545.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.

Brown, A., Antonius, D., Kramer, M., Root, J., & Hirst, W. (2010). Trauma centrality and PTSD in veterans returning from Iraq and Afghanistan. *Journal of Traumatic Stress, 23*(4), 496-499.

Bruner, J. (1990). *Acts of meaning.* Cambridge, Mass: Harvard University Press.

Campbell, J., Trapnell, P., Heine, S., Katz, I., Lavallee, L., & Lehman, D. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology*, *70*(1), 141-156.

Campbell, J., & Sarason, I. G. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality and Social Psychology*, *59*(3), 538-549.

Carlsson, J., Wängqvist, M., & Frisén, A. (2015). Identity development in the late twenties: A never ending story. *Developmental Psychology*, *51*(3), 334-345.

Chandler, M. J., Lalonde, C. E., Sokol, B. W., & Hallett, D. (2003). Personal persistence, identity development, and suicide: A study of Native and Non-native North American adolescents. *Monographs of the Society for Research in Child Development*, 68(2), 1-130.

Cheng, C.-Y., Sanchez-Burks, J., & Lee, F. (2008). Connecting the dots within: Creative performance and identity integration. *Psychological Science*, *19*(11), 1178-1184.

Cohen, S., Wills, T., & House, B. J. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*(2), 310-357.

Conwell, Y., Duberstein, P. R., & Caine, E. D. (2002). Risk factors for suicide in later life. *Biological Psychiatry*, *52*(3), 193-204.

Cooper, C. R. (1987). Conceptualizing research on adolescent development in the family: Four root metaphors. *Journal of Adolescent Research, 2*(3), 321-330.

Crocetti, E., Beyers, W., & Çok, F. (2016). Shedding light on the dark side of identity: Introduction to the special issue. *Journal of Adolescence*, 47, 104-108.

Crocetti, E., Rubini, M., & Meeus, W. (2008). Capturing the dynamics of identity formation in various ethnic groups: Development and validation of a three-dimensional model. *Journal of Adolescence*, *31*(2), 207-222.

Darvill, R., Skirton, H., & Farrand, P. (2010). Psychological factors that impact on women's experiences of first-time motherhood: A qualitative study of the transition. *Midwifery, 26*, 357-366.

Das, A. K., & Kemp, S. F. (1997). Between two worlds: Counseling South Asian Americans. *Journal of Multicultural Counseling and Development, 25*(1), 23-33.

Demers, A. (2011). When veterans return: The role of community in reintegration. *Journal of Loss and Trauma*, *16*(2), 160-179.

Dey, I. (1999). *Grounding grounded theory: Guidelines for qualitative research.* Bingley, UK: Emerald Group Publishing Limited.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71-75.

Dunkel, C. (2005). The relation between self-continuity and measures of identity. *Identity*, *5*(1), 21-34.

Dunlop, W., Tracy, J., & King, Laura. (2013). Sobering stories: Narratives of self-redemption predict behavioral change and improved health among recovering alcoholics. *Journal of Personality and Social Psychology*, *104*(3), 576-590.

Emery, L., Gardner, W., Finkel, E., & Carswell, K. (2018). “You’ve changed”: Low self-concept clarity predicts lack of support for partner change. *Personality and Social Psychology Bulletin*, *44*(3), 318-331.

Erikson, E. (1946). Ego development and historical change. *The Psychoanalytic Study of the Child*, *2*(1), 359-396.

Erikson, E. H. (1968). *Identity: Youth and crisis.* New York: Norton

Erikson, E., Kivnick, J., & Kivnick, Helen Q. (1986). *Vital involvement in old age*. New York: Norton.

Frattaroli, J. (2006). Experimental disclosure and its moderators: A meta-analysis. *Psychological Bulletin, 132*, 823-865.

Gyberg, F., Syed, M., Frisén, A., Wängqvist, M., & Svensson, Y. (2017). “Another kind of Swede”: Ethnic identity in contemporary Sweden. *Emerging Adulthood, 6*(1), 17-31.

Hammack, P. (2008). Narrative and the cultural psychology of identity. *Personality and Social Psychology Review*, *12*(3), 222-247.

Hatano, K., Sugimura, K., & Crocetti, E. (2016). Looking at the dark and bright sides of identity formation: New insights from adolescents and emerging adults in Japan. *Journal of Adolescence*, *47*, 156-168.

Hirsch, J. K., & Barton, A. L. (2011). Positive social support, negative social exchanges, and suicidal behavior in college students. *Journal of American College Health, 59*(4), 393-398.

House, J., Robbins, C., & Metzner, H. (1982). The association of social relationships and activities with mortality: Prospective evidence from the Tecumseh Community Health Study. *American Journal of Epidemiology*, *116*(1), 123-40.

Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods, 6*(1), 53-60.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.

Huang, C., Stormshak, E., & Zárate, M. A. (2011). A longitudinal examination of early adolescence ethnic identity trajectories. *Cultural Diversity and Ethnic Minority Psychology*, *17*(3), 261-270.

Hughes, D., Rodriguez, J., Smith, E. P., Johnson, D. J., Stevenson, H. C., & Spicer, P. (2006). Parents' ethnic-racial socialization practices: A review of research and directions for future study. *Developmental Psychology*, *42*(5), 747-770.

IBM Corp. Released 2015. IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp.

Ireland, M. E., & Mehl, M. R. (2014). Natural language use as a marker. In T. M. Holtgraves (Ed.), *The Oxford handbook of language and social psychology* (pp. 201-237). Oxford, UK: Oxford University Press.

Kaufman, E. A., Montgomery, M. J., Crowell, S. E., (2014). Identity-related dysfunction: Integrating clinical and developmental perspectives. *Identity: An International Journal of Theory of Research, 14*(4), 297-311.

Kessler, R., Chiu, W., Demler, O., Merikangas, K., & Walters, E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, *62*(6), 617-27.

Keyes, C. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, *43*(2), 207-22.

King, D.W., King, L.A., & Vogt, D.S. (2003). *Manual for the Deployment Risk and Resilience Inventory (DRRI): A collection of measures for studying deployment-related experiences of military veterans.* Boston, MA: National Center for PTSD.

King, L., & Raspin, C. (2004). Lost and found possible selves, subjective well-being, and ego development in divorced women. *Journal of Personality*, *72*(3), 603-32.

Kroenke, K., Strine, T. W., Spitzer, R. L., Williams, J. B. W., Berry, J. T., & Mokdad, A. H. (2009). The PHQ-8 as a measure of current depression in the general population. *Journal of Affective Disorders, 114,* 163–173.

Kroger, J., & Marcia, J. E. (2011). The identity statuses: Origins, meanings, and interpretations. In S. J. Schwartz, K. Luyckx, V. L Vignoles (Eds.), *Handbook of identity theory and research, vol. 1* (pp. 31-53). New York: Springer.

Kroger, J. (2015). Identity development through adulthood: The move toward "wholeness." In K. C. McLean & M. Syed (Eds.), *The Oxford handbook of identity development* (pp. 65-95). Oxford: Oxford University Press.

Lehavot, K., Hoerster, K. D., Nelson, K.M., Jakupcak, M., & Simpson, T.L. (2012). Health indicators for military, veteran, and civilian women. *American Journal of Preventive Medicine*, *42*(5), 473-480.

Lewandowski, G., Nardone, N., & Raines, A. (2010). The role of self-concept clarity in relationship quality. *Self and Identity, 9*(4), 416-433.

Luyckx, K., Goossens, L., Soenens, B., Beyers, W., & Vansteenkiste, M. (2005). Identity statuses based on 4 rather than 2 identity dimensions: Extending and refining Marcia's paradigm. *Journal of Youth and Adolescence*, *34*(6), 605-618.

Luyckx, K., Schwartz, S. J., Berzonsky, M. D., Soenens, B., Vansteenkiste, M., Smits, I., & Goossens, L. (2008). Capturing ruminative exploration: Extending the four-dimensional model of identity formation in late adolescence. *Journal of Research in Personality*, *42*(1), 58-82.

Luyckx, K, Schwartz, S. J., Soenens, B., Vansteenkiste, M., & Goossens, L. (2010). The path from identity commitments to adjustment: Motivational underpinnings and mediating mechanisms. *Journal of Counseling & Development*, 88(1), 52-60.

Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology, 3*(5), 551-558.

Marcia, J. (1980). Identity in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology,* (pp. 159-197). New York: Wiley

Marcia, J.E. (1993). The status of the statuses: Research review. In J. E. Marcia, A. S. Waterman, D. R. Matteson, S. L. Archer, & J. L. Orlofsky (Eds.), *Ego identity,* (pp. 22-41). New York: Springer.

Marcia, J. E (2002). Identity and psychosocial development in adulthood. *Identity: An International Journal of Theory and Research, 2*, 7-28.

McAdams, D.P (1993). *The stories we live by: Personal myths and the making of the self.* New York: Morrow.

McAdams, D. P. (2001). The psychology of life stories. *Review of General Psychology, 5,* 100-122.

McAdams, D. P. (2013). The psychological self as actor, agent, and author. *Perspectives on Psychological Science, 8*(3), 272-295.

McAdams, D. P., & McLean, K. C. (2013). Narrative identity. *Current Directions in Psychological Science, 22*(3), 233-238.

McAdams, D., Pals, J., & Anderson, Norman B. (2006). A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist, 61*(3), 204-217.

McLean, K., Pasupathi, M., & Pals, J. (2007). Selves creating stories creating selves: A process model of self-development. *Personality and Social Psychology Review, 11*(3), 262-278.

McLean, K. C., & Syed, M. (2015). Personal, master, and alternative narratives: An integrative framework for understanding identity development in context. *Human Development, 58*, 318-349.

Mello, Z. R., Finan, L. J., & Worrell, F. C. (2013). Introducing and instrument to assess time orientation and time relation in adolescents. *Journal of Adolescence, 36*(3), 551-563.

Morsünbül, E., Crocetti, E., Çok, F., & Meeus, W., (2016). Identity statuses and psychosocial functioning in Turkish youth: A person centered approach. *Journal of Adolescence, 47*, 145-155.

Mroczek, Daniel K., & Spiro, Avron, III. (2005). Change in life satisfaction during adulthood: Findings from the veterans affairs normative aging study. *Journal of Personality and Social Psychology, 88*(1), 189-202.

Muthén, L. K., & Muthén, B. O. (2012). *Mplus User's Guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.

Muthén, L. K. (2002, October 30). Re: Variances of Growth Factors [Online discussion group]. Retrieved from http://www.statmodel.com/discussion/messages/14/228.html?1477415445.

Newheiser, A. K., & Barreto, M. (2014). Hidden costs of hiding stigma: Ironic interpersonal consequences of concealing a stigmatized identity in social interactions. *Journal of Experimental Social Psychology, 52*, 58-70.

Nguyen, A. M. D., & Benet-Martínez, V. (2013). Biculturalism and adjustment: A meta-analysis. *Journal of Cross-Cultural Psychology, 44*(1), 122-159.

Nurmi, J. E. (1991). How do adolescents see their future? A review of the development of future orientation and planning. *Developmental Review, 11,* 1-59

Nurra, C., & Oyserman, D. (2018). From future self to current action: An identity-based motivation perspective. *Self and Identity*, *17*(3), 343-364.

Orazem, R. J., Frazier, P. A., Schnurr, P. P., Oleson, H. E., Carlson, K. F., Litz, B. T., & Sayer, N. A. (2016). Identity adjustment among Afghanistan and Iraq war veterans with reintegration difficulty. *Psychological Trauma: Theory, Research, Practice and Policy*, *9*, 4-11.

Oyserman, D., & Destin, M. (2010). Identity-based motivation: Implications for intervention. *The Counseling Psychologist*, *38*(7), 1001-1043.

Oyserman, D., & Markus, H. R. (1990). Possible selves and delinquency. *Journal of Personality and Social Psychology*, *59*(1), 112.

Pachankis, J. E. (2007). The psychological implications of concealing a stigma: A cognitive-affective-behavioral model. *Psychological Bulletin, 133,* 328-245.

Pals, J. L. (2006). Narrative identity processing of difficult life experiences: Pathways of personality development and positive self-transformation in adulthood. *Journal of Personality, 74*(4), 1079-1110.

Pennebaker, J. W. (2013). *Writing and health: Some practical advice*. Retrieved from http://homepage.psy.utexas.edu/homepage/Faculty/Pennebaker/Home2000/WritingandHealth.html

Penninx, B. W. J. H., van Tilburg, T., Kriegsman, D. M. W., Deeg, D. J. H., Boeke, A. J. P., & van Eijk, J. T. M. (1997). Effects of social support and personal coping resources on mortality in older age: The Longitudinal Aging Study Amsterdam. *American Journal of Epidemiology, 146,* 510-519.

Pietrzak, R. H., Johnson, D. C., Goldstein, M. B., Malley, J. C., & Southwick, S. M. (2009). Psychological resilience and postdeployment social support protect against traumatic stress and depressive symptoms in soldiers returning from Operations Enduring Freedom and Iraqi Freedom. *Depression and Anxiety*, *26*(8), 745-751.

Procidano, M. E., & Heller, K. (1983). Measures of perceived social support from friends and from family: Three validation studies. *American Journal of Community Psychology*, *11*(1), 1-24.

QSR International. Released 2015. NVivo for Windows, Version 11.

Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement 1*(3), 385-401.

Reis, O., Azmitia, M., Syed, M., Radmacher, K., & Gills, J. (2009). Patterns of social support and mental health among ethnically-diverse adolescents during school transitions. *International Journal of Developmental Science*, *3*(1), 39-50.

Rosenberg, M. (1965). *Society and the adolescent self-image.* Princeton, NJ: Princeton University Press.

Rosenthal, D. A., Gurney, R. M., & Moore, S. M. (1981). From trust to intimacy: A new inventory for examining Erikson's stages of psychosocial development. *Journal of Youth and Adolescence, 10*(6), 525-537.

Rueger, S. Y., Malecki, C. K., Pyun, Y., Aycock, C., & Coyle, S. (2016). A meta-analytic review of the association between perceived social support and depression in childhood and adolescence. *Psychological Bulletin, 142*(10). 1017-1067.

Rutt, J. L., & Löckenhoff, C. E. (2016). From past to future: Temporal self-continuity across the life span. *Psychology and Aging*, *31*(6), 631.

Santini, Z. I., Koyanagi, A., Tyrovolas, S., Mason, C., & Haro, J. M. (2015). The association between social relationships and depression: a systematic review. *Journal of Affective Disorders*, *175*, 53-65.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2017). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity: International Journal of Methodology*. Advance online publication.

Sayer, N. A., Noorbaloochi, S., Frazier, P., Carlson, K., Gravely, A., & Murdoch, M. (2010). Reintegration problems and treatment interests among Iraq and Afghanistan combat veterans receiving VA medical care. *Psychiatric Services, 61*(6), 589-597.

Sayer, N. A., Frazier, P., Orazem, R. J., Murdoch, M., Gravely, A., Carlson, K. F., . . . Noorbaloochi, S. (2011). Military to civilian questionnaire: A measure of postdeployment community reintegration difficulty among veterans using Department of Veterans Affairs medical care. *Journal of Traumatic Stress, 24,* 660-670.

Sayer, N. A., Carlson, K. F., & Frazier, P. A. (2014). Reintegration challenges in US service members and veterans following combat deployment. *Social Issues and Policy Review*, *8*(1), 33-73.

Sayer, N. A., Noorbaloochi, S., Frazier, P. A., Pennebaker, J. W., Orazem, R. J., Schnurr, P. P., . . . Litz, B. T. (2015). Randomized controlled trial of online expressive writing to address readjustment difficulties among U.S. Afghanistan and Iraq war veterans. *Journal of Traumatic Stress, 28,* 381–390.

Schachter, E. P. (2004). Identity configurations: A new perspective on identity formation in contemporary society. *Journal of Personality, 72*(1), 167-200.

Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research, 99*(6), 323-337.

Schwartz, S. J., Luyckx, K., & Crocetti, E. (2015). What have we learned since Schwartz (2001)?: A reappraisal of the field of identity development. In K. C. McLean & M. Syed (Eds.), *The Oxford handbook of identity development*, (pp. 539-561). Oxford, UK: Oxford University Press.

Schwartz, S. J., Meca, A., & Petrova, M. (2017). Who am I and why does it matter? Linking personal identity and self-concept clarity. In J. Lodi-Smith & K. G. DeMarree (Eds.), *Self-concept clarity* (pp. 145-164). New York: Springer.

Schwarzer, R., & Leppin, A. (1991). Social support and health: A theoretical and empirical overview. *Journal of social and personal relationships*, *8*(1), 99-127.

Sedikides, C., Wildschut, T., & Grouzet, F. (2018). On the temporal navigation of selfhood: The role of self-continuity. *Self and Identity, 17*(3), 255-258.

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis.* New York: Oxford University Press.

Smith, T. C., Ryan, M. A., Wingard, D. L., Slymen, D. J., Sallis, J. F., & Kritz-Silverstein, D. (2008). New onset and persistent symptoms of post-traumatic stress disorder self reported after deployment and combat exposures: Prospective population based US military cohort study. *British Medical Journal*, *336*, 366-371.

Sokol, Y., & Eisenheim, E. (2016). The relationship between continuous identity disturbances, negative mood, and suicidal ideation. *The Primary Care Companion for CNS Disorders*, *18*(1). Online publication.

Solomontos-Kountouri, O., & Hatzittofi, P. (2016). Brief report: Past, present, emergent and future identities of young inmates. *Journal of Adolescence, 47*, 119-124.

Sowislo, J. F., & Orth, U. (2013). Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychological Bulletin, 139*(1), 213-240.

Stephen, J., Fraser, E., & Marcia, J. E. (1992). Lifespan identity development: Variables related to Moratorium-Achievement (MAMA) cycles. *Journal of Health and Social Behavior, 32*, 180-19.

Sundin, J., Fear, N. T., Iversen, A., Rona, R. J., & Wessely, S. (2010). PTSD after deployment to Iraq: Conflicting rates, conflicting claims. *Psychological Medicine*, *40*(3), 367-382.

Syed, M. (2017). Advancing the cultural study of personality and identity: Models, methods, and outcomes. *Current Issues in Personality Psychology, 5*(1), 65-72.

Syed, M., Azmitia, M., & Cooper, C. R. (2011). Identity and academic success among underrepresented ethnic minorities: An interdisciplinary review and integration. *Journal of Social Issues*, *67*(3), 442-468.

Syed, M., DeYoung, C. G., & Tiberius, V. (2018). Self, motivation, and virtue or: How we learned to stop worrying and love deep integration. *Manuscript in preparation.* https://psyarxiv.com/e3t4z/

Syed, M., & McLean, K. C. (2016). Understanding identity integration: Theoretical, methodological, and applied issues. *Journal of Adolescence*, *47*, 109-118.

Syed, M., & Mitchell, L. L. (2015). Temporal identity integration as a core developmental process. In R. Scott, & S. Kosslyn (Eds.), Emerging trends in the social and behavioral sciences (pp. 1-15). San Francisco, CA: Wiley.

Syed, M., & Nelson, S. C. (2015). Guidelines for establishing reliability when coding narrative data. *Emerging Adulthood*, *3*(6), 375-387.

Tannenbaum, M. (2007). Back and forth: Immigrants' stories of migration and return. *International Migration*, *45*(5), 147-175.

Tomarken, A. J., & Waller, N. G. (2005). Structural equation modeling: Strengths, limitations, and misconceptions. *Annual Review of Clinical Psychology, 1,* 31-65.

Trout, D. L. (1980). The role of social isolation in suicide. *Suicide and Life-Threatening Behavior*, *10*(1), 10-23.

Turner, R. N., Hewstone, M., & Voci, A. (2007). Reducing explicit and implicit outgroup prejudice via direct and extended contact: The mediating role of self-disclosure and intergroup anxiety. *Journal of Personality and Social Psychology*, *93*(3), 369.

Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1997). The relationship between social support and psychological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin, 119*, 488-531.

Umaña-Taylor, A. J., Gonzales-Backen, M. A., & Guimond, A. B. (2009). Latino adolescents' ethnic identity: Is there a developmental progression and does growth in ethnic identity predict growth in self-esteem? *Child Development, 8*, 391-405.

Van Hoof, A., & Raaijmakers, Q. A. (2002). The spatial integration of adolescent identity: Its relation to age, education, and subjective well–being. *Scandinavian Journal of Psychology*, *43*(3), 201-212.

Van Hoof, A., & Raaijmakers, Q. A. (2003). The search for the structure of identity formation. *Identity: An International Journal of Theory and Research*, *3*(3), 271-289.

Vignoles, V. L., Schwartz, S. J., & Luyckx, K. (2011). Introduction: Toward an integrative view of identity. In S. J. Schwartz, K. Luyckx, & V. L. Vignoles (Eds.), *Handbook of identity theory and research,* (pp. 1-27). Springer, New York, NY.

Waterman, A. S. (1985). Identity in the context of adolescent psychology. *New Directions for Child and Adolescent Development*, *30*, 5-24.

Weathers, F. W., Litz, B. T., Herman, D. S., Huska, J. A., & Keane, T. M. (1995). *PTSD Checklist: Military Version (PCL-M)*. Boston, MA: National Center for PTSD.

Westen, D., Betan, E., & DeFife, J. A. (2011). Identity disturbance in adolescence: Associations with borderline personality disorder. *Development and Psychopathology*, *23*(1), 305-313.

Wilkinson-Ryan, T., & Westen, D. (2000). Identity disturbance in borderline personality disorder: An empirical investigation. *American Journal of Psychiatry*, *157*(4), 528-541.

Yoon, E., Chang, C. T., Kim, S., Clawson, A., Cleary, S. E., Hansen, M., … & Gomes, A. M. (2013). A meta-analysis of acculturation/enculturation and mental health. *Journal of Counseling Psychology, 60*(1), 15-30.

Appendix A: Coding Manual

Coding System for Veterans Reintegration Writing Samples

Using the Coding System

There are six major themes, and most contain subcategories. The major themes are: Context change; Context continuity; Self-change; Self-continuity; Identity disruption; Mental health concerns.

All themes will be coded qual → quant: each response will be scanned for the presence or absence of the theme, and will receive a corresponding numeric code input into a spreadsheet.

**NOTE: All codes should be applied ONLY for the transition from military to civilian life, and associated transitions (e.g., moving, changing jobs, other major life changes that happened concurrently with reintegration). For the purposes of this study, we will be disregarding any identity information that only pertains to life before or after the military. We are focusing specifically on *this* transition period, not transitions experienced earlier or later in life

As a general rule, only code things that the participant specifically states (e.g., a literal quote); if what the participant is saying is unclear (e.g., not enough information), do not code.

If the participant provides no information about the valence of a category, it should be coded based on what would be developmentally healthy or normal. For example, getting a job should be coded as a positive valence, since working is an indicator of normal development. Same with relationships with family and friends, new children, or education.

Coding Categories

Context Continuity

Aspects of the participant's context or environment - the places, people, and things that surround them - that have stayed the same through their reintegration experience. Participant must indicate that the context/conditions has remained the same or continuous in some way.

Code by valence:
1: Theme is present, and positively valenced
0: Theme is absent
-1: Theme is present, and negatively valenced.

- Work Continuity
  Participant describes some aspect of their career that has remained constant from their military work, through to civilian life - a job role they have retained, job skills that are still being put to use, work relationships that are still part of their career, etc.

- Friends Continuity
  Participant discusses sameness or continuity in friendships or friend group dynamics over their transition. May refer to one specific friend or a group of friends, but should use the term “friend,” “friendship,” “buddy,” “confidant,” etc. Merely referring to peers (e.g., coworkers) is not enough. This should include participants who have never had any friends and still have no friends.

- Family Continuity
  Participant discusses continuity or sameness in family relationships, family composition, or family dynamics over their transition. This excludes relationships with a partner (e.g., spouse), which are captured in the category below.

- Partner Continuity
  Participant discusses continuity in their relationship with their partner. This continuity may be positive (a source of stability and dependable comfort) or negative (a source of chronic, continuing conflict).

- Transitional Programs
  Participant mentions programs or services that they have accessed that are designed to help veterans transition back to civilian life (e.g., yellow ribbon). The GI Bill may be considered a transitional program when the participant uses it (or attempts to use it) to help them reintegrate by moving them forward in their career.

- Continued Military Involvement
  Participant discusses remaining involved with the military, e.g., through service in the Reserves or National Guard, deciding to return to the military after taking a break, remaining closely involved in military culture, keeping up strong relationships with service members or veterans, etc. Participant must have an actual change, rather than speculating about rejoining or wishing to rejoin.

- Other Context Sameness
  Participant discusses other aspects of their context or environment that have remained the same since deployment, that do not fit in one of the categories above. Please list proposed categories in the coding sheet.

Context Change

Aspects of the participant's context or environment that have changed through their reintegration experience.

Generally, do not code speculative, hypothetical, or potential future context changes, only changes that have actually occurred in reality. The cause of a change is not relevant.

Code by valence:
1: Theme is present, and positively valenced
0: Theme is absent
-1: Theme is present, and negatively valenced.

- Work Change
  Participant describes changes in their career - changing jobs, becoming unemployed, searching for a different job, changing attitudes toward work, excitement about work, other emotional reactions towards work, and changes in feelings towards co-workers or relationships with co-workers.

- Residence Change
  Participant discusses moving or relocating to a place other than the residence where they lived before deployment. The fact of simply having moved back from their deployment is not sufficient to code for this category - otherwise we would code every participant in this category. Instead, the participant should discuss specific thoughts, feelings, or actions having to do with moving, readjusting to a new town or city, getting a house, apartment, etc.

- Friends Change
  Participant discusses changes in friendships or friend group dynamics over their transition. Includes any quality or aspect of the relationship that changes: closeness, warmth, proximity, amount of friends, etc. This will likely provide information on how friends are treating the participant, but if it's only about how the participant relates to other people it is not sufficient for this category (that likely indicates a self-change). May refer to friends from home, or friends made while on deployment. May also refer to one specific friend or a group of friends, but should use the term "friend," "friendship," "buddy," "confidant," etc.

- Family Change
  Participant discusses changes in family relationships, family composition, or family dynamics over their transition. This excludes relationships with a partner (e.g., spouse), which are captured in the category below. This will likely provide information on how the family are treating the participant, but if it's only about how the participant relates to their family, it is not sufficient for this category. For children and custody changes, code as a change if there has been a change from pre-deployment to post-deployment.

- Partner Change
  Participant discusses a change in their relationship with their partner. These changes may be negative, such as distancing, betrayal, new feelings of anger, disappointment, or fighting. They may be positive, such as growing closer, or gaining a new appreciation for someone close. This category may also include either getting a new partner or breaking up. This will likely provide information on how the partner is treating the participant, but if it's only about how the participant relates to their partner, it is not sufficient for this category.

- Financial Change
  Participant mentions changes in their financial situation. Often this includes new financial stresses associated with lower or less stable pay. This could also be a positive financial change.

- Health Services Change
  Participant experiences a change in health care services after returning from deployment. This may include change in access to providers, change in utilization of health care services, change in health insurance, and both physical and mental health. Can be voluntary or involuntary changes in health services. Not a one-time visit to the doctor.

- Going to School
  Participant describes going to school, starting college, taking classes, etc. May include feeling out of place at school, or feelings of belongingness at school. Should include information about their experience at school - the kinds of people, ideas, places they are interacting with in the educational environment.

- Lack of Structure
  Participant describes noticing a lack of structure compared to military life, missing the structure of military life, military routines, or discusses a positive sense of freedom after separating from a structured environment. Lack of structure should be specific to the participant's life, and not just a reaction/frustration to other people or new context (i.e., this is not a catch-all category for general context changes). Will likely use the term "structure" or a synonym; often also refers to punctuality, uniforms, and other aspects of military life associated with orderliness and predictability.

Self Change
Aspects of the participant's self that have changed through their reintegration experience. The participant describes their sense of self adapting, adjusting, shifting, or changing.

Code by valence:

1: Theme is present, and positively valenced
0: Theme is absent
-1: Theme is present, and negatively valenced.

- Physical Change
  Participant has changed physically, including chronic illnesses, injuries or disabilities, body weight changes, and any other lasting physical change.

- Heightened Awareness
  Participant discusses frequently feeling sensitivity to surroundings, or hypervigilance. This should not be a unique instance, but an ongoing pattern over time.

- Volatility
  Participant describes being more angry or irritable, easily upset, having difficulty keeping emotions under control, more volatile or rapidly changing mood, losing composure more often, mood swings, being easily annoyed, agitated, or stirred up, or experiencing panic more often. This should be an ongoing, persistent experience of increased volatility, rooted in the individual, consistent across situations - not brief episodes, or only in response to one particular stimulus.

- Withdrawal
  Participant discusses feeling more depressed, blue, or down, feeling full of doubts, feeling uncomfortable with themselves, feeling guilty frequently, feeling easily threatened or fearful, worrying or experiencing anxiety, feeling easily discouraged or embarrassed, easily overwhelmed, emotionally dampened. Participant may also describe behavioral withdrawal: withdrawing from social and work life, or disengaging from daily routines and obligations. May include a lack of motivation to go out and get involved in things, preferring to stay home, remain isolated, not talk to people, etc. This should be an ongoing, persistent experience of increased withdrawal, rooted in the individual, consistent across situations - not brief episodes, or only in response to one particular stimulus.

- Lessons Learned
  Participant discusses major life lessons they have learned as a consequence of serving in the military, and that they have kept or carried over into civilian life. Participant may also discuss new skills, competencies, resilience that they have gained, new appreciation, and ways they have become stronger as a consequence of their experiences.

Self Continuity

The participant describes maintaining, protecting, keeping constant aspects of their sense of self through the deployment to civilian transition.

Code by valence:
1: Theme is present, and positively valenced
0: Theme is absent
-1: Theme is present, and negatively valenced.

For instance, if a participant mentions having maintained a trait over time, and the trait and/or their feelings about it are positive (e.g., "I have always been reliable and hard-working"), code a 1. If a participant mentions maintaining continuity for a negative trait, or in a way that shows they feel negatively about the continuity (e.g., "I have always been too shy, and I wish I could be more outgoing"), code a -1.

Identity Disruption

- Must include both internal and external change – self change as a consequence of disruptive events or transitions
- Involves at least one of the following, to capture a level of importance. It shouldn't be a little superficial change in the self, it should be something that cuts deep.
    - Loss of meaning or purpose in life
        - I'm not contributing to anything meaningful.
        - There is no larger purpose any more in my life.
        - Nothing feels fulfilling any more.
        - Everything I've been working toward is over.
        - I feel like I'm searching for something – something is missing.
        - I have no commitments or goals.
        - I'm not making progress in life.
        - I feel like I'm floating along from day to day.
    - Discontinuity between past, present, and future
        - I feel stuck wanting to live in the past.
        - I miss being the person I was during deployment.
        - My future is really unclear now.
        - I can't reconnect with prior goals.
        - I feel a lack of direction.
        - I can't go back back to what I loved before deployment.
        - It's hard to readjust to who I was before.
        - I want to escape my current life.
        - I've had to give up on a big dream or goal.
        - I never expected my life to look like this.
        - I feel unable to move on.
        - I'm having a hard time not living in the past.
        - I feel stuck in the past.

        - I still feel really hurt or heartbroken by something that happened years ago – I can’t let it go.
        - I want to ignore the past or disconnect from the past.
        - I feel cut off from my past life.
        - I want my old life back.
        - I feel like I have shed a skin.
        - I feel like I am starting a new chapter full of blank pages, and I don’t know what to write.
        - The way I feel about life is fundamentally different than it was before.
        - I am not the person I used to be.
        - I feel like I am living two lives that are disconnected from each other.
        - I feel like I want to hide my past self.
    - Role dysfunction: problems related to specific social roles
        - I’ve done this role my whole life and I don’t know how not to.
        - I worry I won’t make it as a [civilian, good parent, other role]
        - I feel like others are forcing me into an identity I didn’t choose, or pigeonholing me.
        - I’m not confident I'll find a place to fit in or a team to join.
        - I feel in pain at having lost part of my identity.
        - I am no longer treated like an expert.
        - I persistently feel like I don’t fit into society.
        - My skills/traits don’t carry over well into this new context.
        - I’m having trouble functioning in this new context.
        - I feel like I’m failing to fulfill my role expectations.
        - I feel disillusioned about the group I was a part of, or the identity I used to hold.
        - I feel like I've been stripped of my persona.
    - Loss of self-worth
        - I was important before, and now I’m not.
        - My past accomplishments mean nothing now.
        - I feel embarrassed at what my life is now.
        - I'm limited in how high I can climb from here.
        - The things I'm doing now are not as valuable as the things I did before.
        - I feel like I don’t contribute to society any more.
        - I'm not having the same kind of impact on society as I used to.
        - I've peaked and there's nothing better on the horizon for me.
        - I failed to earn the next step of my path.
        - I’m not sure of my value as a person.
        - My self-esteem is lower than it was before.
        - I’m not sure what my life has amounted to.
        - I feel down and sorry for myself.

- I feel like I've been demoted.
- I have no agency any more

Mental Health Concerns

Mental health concerns include symptoms like memory problems, anxiety, lack of motivation, feelings of hopelessness, helplessness, or worthlessness, hypervigilance, sleep problems, substance abuse, flashbacks, flat affect, social anxiety and isolating behavior, panic, nightmares.

Simply mentioning stressors and stating that they are difficult, frustrating, or worrying is not sufficient. There must be some information about the participant's *ongoing* psychological experiences. Feeling normal, negative emotions in response to a stressful or difficult situation is not part of this category. Experiencing difficulty is not sufficient - it's about how they are coping with it.

Mild

Mild mental health concerns are characterized by:

- Mentioning just 1-2 symptoms
- Causes some distress or interference with functioning, but not major (not destroying relationships, not interfering with job performance, not feeling hopeless or worthless)
- Problems are temporary or just occasional
- Often includes coping, meaning-making, hopefulness, finding the bright side, etc.

Moderate

Moderate mental health concerns are those that don't fit into the Mild or Severe categories, that fall somewhere in between.

Severe

Severe mental health concerns include:

- Participants mentioning that they have been diagnosed (or that they believe they should be diagnosed) with PTSD, TBI, major depression, bipolar disorder, or other serious mental illnesses
- Evidence of severe distress in the participant's language
- Serious interference with work, relationships, or life functioning
- Endangering self or others
- Mental health concerns dominate the narrative
- Incoherence in the narrative

Appendix B: Measures

DRRI Post-Deployment Social Support

The statements below refer to social support after your (most recent) deployment. Please indicate how much you agree or disagree with each statement. When answering these questions please think about how you have felt in the past month.

	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
1. The reception I received when I returned from my deployment made me feel appreciated for my efforts.					
2. The American people made me feel at home when I returned.					
3. When I returned, people made me feel proud to have served my country in the Armed Forces.					
4. I am carefully listened to and understood by family members or friends.					
5. Among my friends or relatives, there is someone who makes me feel better when I am feeling down.					
6. I have problems that I can't discuss with family or friends.					
7. Among my friends or relatives, there is someone I go to when I need good advice.					
8. People at home just don't understand what I have been through while in the Armed Forces.					
9. There are people to whom I can talk about my deployment experiences.					
10. The people I work with respect the fact that I am a Veteran.					
11. My supervisor understands when I need time off to take care of personal matters.					
12. My friends or relatives would lend me money if I needed it.					
13. My friends or relatives would help me move my belongings if I needed to.					
14. When I am unable to attend to daily chores, there is someone who will help me with these tasks.					
15. When I am ill, friends or family members will help out until I am well.					

PTSD Checklist

Below is a list of problems and complaints that Veterans sometimes have in response to stressful military experiences. Please read each one carefully, then fill in one of the responses to the right to indicate how much you have been bothered by the problem in the past month.

	Not at All	A little Bit	Moderately	Quite A Bit	Extremely
1. Repeated, disturbing memories, thoughts or images of a stressful military experience					
2. Repeated disturbing dreams of a stressful military experience					
3. Suddenly acting or feeling as if a stressful military experience were happening again					
4. Feeling very upset when something reminded you of a stressful military experience					
5. Having physical reactions (such as heart pounding, trouble breathing, sweating) when something reminded you of a stressful military experience					
6. Avoiding thinking about or talking about a stressful military experience, or avoiding having feelings related to it					
7. Avoiding activities or situations because they remind you of a stressful military experience					
8. Trouble remembering important parts of a stressful military experience					
9. Loss of interest in activities that you used to enjoy					
10. Feeling distant or cut off from other people					
11. Feeling emotionally numb or being unable to have loving feelings for those close to you					
12. Feeling as if your future will somehow be cut short					
13. Trouble falling or staying asleep					
14. Feeling irritable or having angry outbursts					
15. Having difficulty concentrating					
16. Being "super-alert" or watchful or on guard					
17. Feeling jumpy or easily startled					

Satisfaction With Life Scale

Please read the following questions and respond with your level of agreement (from strongly disagree to strongly agree) with the statements regarding your life as a whole: There are no right or wrong answers to these questions. When answering these questions please think about how you have felt in the past 2 weeks.

	Strongly Disagree	**Disagree**	**Slightly Disagree**	**Neither Agree Nor Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**
1. I am satisfied with my life.							
2. The conditions of my life are excellent.							
3. In most ways my life is close to my ideal.							
4. So far I have gotten the important things I want from life.							
5. If I could live my life over, I would change almost nothing.							

Military to Civilian Questionnaire

These questions ask about how you have been doing over the past 30 days. Please read each question and then rate the amount of difficulty you have been having over the past 30 days.

Over the past 30 days, have you had difficulty with…	**No difficulty**	**A little difficulty**	**Some difficulty**	**A lot of difficulty**	**Extreme difficulty**	
1. Dealing with people you do not know well (such as acquaintances or strangers)?						
2. Making new friends?						
3. Keeping up friendships with people who have no military experience?						
4. Keeping up friendships with people who have military experience (including friends who are active duty or Veterans)?						
5. Getting along with relatives (such as siblings, parents, grandparents, in laws and children not living at home)?						
	No difficulty	**A little difficulty**	**Some difficulty**	**A lot of difficulty**	**Extreme difficulty**	**Does not apply**
6. Getting along with your spouse or partner (such as communicating, doing things together, enjoying his or her company)?						
7. Getting along with your child or children (such as communicating, doing things together, enjoying his or her company)?						
8. Finding or keeping a job (paid or non-paid or self-employment)?						
9. Doing what you need to do for work or school?						
	No difficulty	**A little difficulty**	**Some difficulty**	**A lot of difficulty**	**Extreme difficulty**	
10. Taking care of your chores at home (such as housework, yard work, cooking, cleaning, shopping, errands)?						
11. Taking care of your health (such as exercising, sleeping, bathing, eating well, taking medications as needed)?						
12. Enjoying or making good use of free time?						
13. Taking part in community events or celebrations (for example festivals, PTA meetings, religious or other activities)?						

14. Feeling like you belong in “civilian” society?					
15. Confiding or sharing personal thoughts and feelings?					
16. Finding meaning or purpose in life?					

Appendix C: Extended Literature Review

A more extensive review of the literatures on identity, social support, and the intersection between them was conducted for the proposal of this study. Below, I have reproduced these sections of that literature review.

Identity Development and Major Life Transitions

The term "identity" is used in a variety of different ways within the discipline of psychology (Syed, Azmitia, & Cooper, 2011; Vignoles et al., 2011). However, at a broad level, most conceptualizations of identity can fit within a relatively simple designation: identity is the answer to the question, "Who am I?" (Syed & McLean, 2016; Vignoles et al., 2011). In the case of major life transitions, like marriage, having children, starting and ending careers, and immigration, answers to the question "Who am I?" may radically change. Here, I review several of the main theoretical orientations within the field of identity research, with a focus on the way that each approach treats major life transitions that may disrupt or threaten existing identities.

Eriksonian Perspectives

As discussed above, Erikson (1968) provided the main theoretical foundation of most modern research on personal identity. He described identity as "the awareness of the fact that there is a self-sameness and continuity to the ego's synthesizing methods, the style of one's individuality, and that this style coincides with the sameness and continuity of one's meaning for significant others in the immediate community" (Erikson, 1968, p. 50). Eriksonian perspectives in general tend to be interested in questions of personal identity processes and content, i.e., how an individual's identity forms over time, how it

is shaped by internal and external influences, and what the outcome of these developmental processes looks like (Syed & McLean, 2016).

Identity integration, or the development of a coherent, cohesive sense of self, is an important outcome of successful identity development (Syed & McLean, 2016). A substantial body of literature suggests that creating and maintaining an integrated, coherent sense of self is necessary for positive adjustment and well-being (e.g., Erikson, 1968; Syed & Mitchell, 2015; Mello et al., 2013; Chandler et al., 2003; McAdams, 2013).

Erikson's (1950, 1968) theoretical positions on identity are embedded within the broader structure of his psychosocial stage model of development. In this model, each stage of life has a central task or conflict that must be resolved for adaptive development. The main task of adolescence and young adulthood is *identity vs. role confusion*. In this stage, young people focus their mental energy on figuring out who they are, what is important to them, and what they want their lives to look like, in terms of work, relationships, ideology, religion, and so on.

Though Erikson proposed that identity development begins in earnest in adolescence and peaks in young adulthood, he recognized that identity development is a lifelong project that continues through adulthood. Identity may need to shift in adulthood, to adapt and adjust to life's changes and transitions: "During adulthood, the individual struggles to balance a faithfulness to some commitments with an inevitable confusion and abandonment of others" (Erikson, Erikson, & Kivnick, 1986, p. 130). As such, Eriksonian perspectives are useful for understanding identity development in response to life transitions in adulthood. The field of personal identity research is

currently occupied by two primary approaches, represented by the identity status model, and the study of narrative identity and life stories. Below, I review the basic tenets of these perspectives, and the ways they interpret and explain the effects of major life transitions on identity.

Identity Statuses. Marcia's (1966; Marcia et al., 1993; Kroger & Marcia, 2011) identity status model was one of the first successful operationalizations of Erikson's work, and has dominated much of the psychological literature on personal identity development (Kroger, 2015). This model borrows Erikson's processes of *exploration*, or trying out and learning about different possibilities, and *commitment,* or making decisions about what elements to incorporate into one's identity, and what elements to discard. Combining these two processes generates a two-by-two matrix, with each cell representing a different identity status (see Figure 1). Reaching *identity achievement* involves engaging in both exploration and commitment processes. Individuals who attain this status have questioned and tested out different roles and values before deciding which ones to adopt. The *moratorium* status is a precursor to achievement, in that individuals in this status are in the process of exploring, but have not yet made commitments. This status is often characterized by struggle and uncertainty. *Foreclosure* contrasts with achievement, as foreclosed individuals have made commitments without engaging in exploration, often by adopting the identity commitments suggested to them by others, or by traditions or cultural norms. Foreclosure can result in relatively brittle, less malleable identity commitments. Finally, *diffusion* is experienced by individuals who have not undergone exploration or

commitment processes. Adolescents who have not yet entered moratorium fit within this category, as well as older individuals who have avoided engaging in identity work, or who have committed to identities that are subsequently lost or damaged.

Though Marcia's approach is largely focused on identity formation in adolescence and young adulthood, he and others have developed theory to explain identity stability and change in adulthood (e.g., Marcia, 2002; Stephen, Fraser, & Marcia, 1992; Kroger, 2015). One way that identity can develop through adulthood is through cyclical processes of moratorium-achievement-moratorium-achievement (MAMA cycles; Stephen et al., 1992). In these cycles, adults fluctuate between exploration and commitment, as new options present themselves, are considered, and potentially adopted as new identities. Bosma and Kunnen (2001) also propose a model of gradual, iterative identity change, in which fit between an individual's current commitments and their context is repeatedly evaluated and revised as needed. Identity can also be reformulated more precipitously, in response to sudden or major changes in life conditions. In these cases, identity-achieved adults may regress back into diffusion, before returning to the exploratory processes of moratorium (Kroger, 2015). Adults who have settled into foreclosure may resist the kind of low-level turbulence that MAMA cycles describe through adulthood, but they may also have exceptional difficulty recovering from major life changes that threaten their rigid identities.

Research conducted using the identity status model provides some insight into the ways in which later-life events may spur and influence identity development. Anthis (2002) examined the effects of stressful life events on identity exploration and

commitment. Stressful life events were measured using the Social Readjustment Rating Scale-Revised (SRRS-R; Hobson et al., 1998), in which participants indicate their experiences with a wide range of stressful events such as death of loved ones, health problems, being affected by crime, financial issues, divorce, infidelity, and so on. Identity and stressful life events were measured twice, five months apart, and regression was used to test whether stressful life events predicted Time 2 identity scores, over and above Time 1 identity scores. Stressors related to death and dying were associated with increases in identity exploration, whereas financial issues were associated with decreases in exploration. Furthermore, health-related stressors predicted decreases in commitment, while family-related stressors predicted increases in commitment.

These findings challenged the results of an earlier study of the influence of life events on identity status change. Kroger and Green (1996) interviewed adults ages 40-63 using Marcia's (1966) Ego Identity Status Interview, which asks participants to describe their attitudes at age 15 and subsequent developments in their attitudes to the present, in domains such as occupation, politics, sex roles, and religion. Interview responses can be analyzed to categorize participants within one of Marcia's four identity statuses. Results of the qualitative analysis revealed that, contrary to expectations, *internal* processes of change – new awareness, realizations, and changes in perspective, without clear connections to external events – drove most changes in identity status. While this result may seem contradictory to those found by Anthis (2002), they may be reconciled in several possible ways. It is likely that serious, deeply stressful events of the type measured by the SRRS-R, are more likely to exert powerful effects on identity. It is also

possible that internal processes of change are in fact triggered by external events, but delayed and so seemingly disconnected.

Ultimately, the identity status model has generated several plausible hypotheses about how identity can change in response to life transitions. However, relatively little empirical work to test those hypotheses exists, perhaps because the identity status model represents a formistic approach to studying identity – seeking to sort individuals into one of four broad categories – when the impact of life transitions may be highly contextualized (Cooper, 1987). The narrative identity approach, in contrast, is purposely geared toward examining the interaction between life events and identity development. I turn now to a brief review of the main principles of narrative identity theory and research, with particular attention to the ways in which narrative researchers treat major life transitions.

Narrative Identity and Temporal Continuity. Narrative identity is the ongoing, constantly evolving story of one's life that contributes to a continuous and coherent sense of self (McAdams, 1993; McAdams, 2001; McAdams & Pals, 2006; Hammack, 2008; McLean, Pasupathi, & Pals, 2007). The focus of much research on narrative identity is on examining the ways in which patterns in life stories relate to mental health and other psychological outcomes of interest (e.g., Bauer & McAdams, 2004; King & Raspin, 2004; Pals, 2006). Both the structure and the content of life narratives can give insight into important aspects of an individual's identity. However, narrative researchers are often less interested in the objective facts that are reported through narratives, and more interested in the way the individual tells the story and the meaning that the individual

derives from the events. Narratives are one way that individuals can make sense of their experiences, including major life changes that can disrupt their existing sense of self.

Accordingly, there is a substantial body of literature on change narratives, or stories of changes in one's sense of self, often in response to major life transitions. *Self-event connections* are an important construct in this body of literature, and refer to the way that a given event or experience shapes an individual's sense of self (Pasupathi et al., 2007). For example, a person may tell the story of deciding to change their college major from pre-med to political science upon failing an introductory chemistry course. They may connect this event to their sense of self with a statement such as, "I learned I was not cut out for the sciences, and so I decided to try something new."

The empirical work on narrative identity development includes studies of change narratives in response to a wide variety of life events, such as religious conversions and career shifts (Bauer & McAdams, 2004), divorce (King & Raspin, 2004), bereavement (Baddeley & Singer, 2010), recovery from alcoholism (Dunlop & Tracy, 2013), and psychotherapy (Adler et al., 2008; Adler, 2012). Most of these studies seek to identify themes or structural elements within narratives, and explore their relations to mental-health outcomes. For example, Adler (2012) examined personal narratives written by clients undergoing psychotherapy before treatment, and after each of twelve treatment sessions. This study revealed that increases in the theme of agency in participants' narratives predicted improvements in their mental health, and that changes in mental health *followed* changes in agency themes. In other words, after clients started telling their therapy story in a way that highlighted their self-sufficiency and control, they started

seeing improvements in their mental health. This, and other studies in this domain, reveal important insights into the mechanisms of identity change in response to transformative life events.

Temporal Identity Integration. A concept closely related to narrative identity is *temporal identity integration*, or continuity of one's sense of self across past, present, and future (Syed & Mitchell, 2015). Whereas the identity status model does not directly focus on continuity of the self over time, the narrative identity approach relies on and is fundamentally interested in the unfolding of identity over time. Temporal identity integration is related to constructs such as *future orientation* (i.e., individuals' tendency to think about the future and plan for the future; Nurmi, 1991) and *possible selves* (i.e., images of the self one hopes to become in the future; Oyserman & Markus, 1990), though distinct in that it incorporates elements of past, present, and future.

Although temporal identity integration was a foundational concept in Erikson's (1968) theory of identity development, and has been linked to important mental-health outcomes (Chandler et al., 2003), empirical work on temporal identity integration has been quite limited. I am aware of only one recent empirical study systematically examining the temporal integration of individuals' past identity, present identity, and future identity. Solomontos-Kountouri and Hatzittofi (2016) collected qualitative and quantitative data on the identities of young inmates as they perceived them before imprisonment, during imprisonment, and their hopes and expectations for their identities after their release from prison. They found each time period was characterized by different themes. Past identities tended to be focused on risk factors like drug abuse, poor

school performance, and poverty. Present identities were characterized by stressors of imprisonment, but also opportunities for education and vocational development, and for many, a commitment to religion. Future identities focused on aspirations for the future, such as developing a career, starting a family, and improvement of reputation and self-image. While this study provides some useful information on how past, present, and future identities can be linked for individuals undergoing a major life transition, there is still much to explore.

In addition to expanding our understanding of the impacts of major life events on identity, studying temporal identity integration may help resolve some of the theoretical dissonance within the field of identity. Researchers have pointed to a basic disconnect between identity status and narrative identity approaches (McLean & Pasupathi, 2012). The identity status model is inherently present-focused, as it first and foremost aims to ascertain individuals' current identity status. In contrast, narrative identity approaches are inherently backward-looking, focused on the telling of events that happened in the past. Temporal identity integration offers one possible path forward for integrating these approaches, as it addresses individuals' identity across the past, present, and future.

Social Identity

The term "identity," as it is commonly used in social psychology and sociology, has a different meaning from that I have been using so far in this discussion. Eriksonians focus on personal identity, and developing an integrated, coherent, internal sense of self. In contrast, identity scholars coming from the tradition of G.H. Mead (1934) are more interested in the social meaning of identity – the social roles we take on (e.g., parent,

teacher), and the groups and communities associated with our identities (e.g., women, Asian Americans, athletes). Social Identity Theory (SIT; Tajfel & Turner, 1979) is one example of a theoretical framework stemming from Mead's perspective. SIT suggests that individuals identify as members of various social groups, and that individuals tend to hold more positive attitudes toward groups that they belong to, and to feel a sense of attachment to other members of their group. In these ways, group membership can serve to unify and connect members within a group, while at the same time distancing different groups from each other. Social identity is asserted and performed through behavior consistent with group norms (Hogg & Smith, 2007).

Social identity is not a central focus of the proposed study, but it is a major theoretical orientation within the identity literature, and the line between social and personal identity is often blurry. Furthermore, as I will explain below, much of the literature on the intersection of identity and social support has focused on social rather than personal identity. I turn now to a review of the relevant literature on social support, followed by an examination of the available literature focused on the interactions between identity and social support.

Social Support

A large body of psychological research exists on social support (e.g., Antonucci & Akiyama, 1987; Azmitia et al., 2013; Cohen & Wills, 1985; Procidano & Heller, 1983; Reis et al., 2009). It is beyond the scope of this paper to systematically review this sprawling body of literature. Instead, my aim is to review the literature as needed in order to describe and provide context for the constructs relevant to the proposed study,

and to highlight important questions related to social support that have not yet been satisfactorily addressed in this body of work.

Interpersonal relationships have been a focus for psychologists since the start of the field, but research on social support grew rapidly through the 1980's, partly in response to a desire to explain relatively weak correlations between stressful events and mental health symptoms (Procidano & Smith, 1997). Research on social support was spearheaded by scholars such as Procidano (Procidano & Heller, 1983; Procidano & Smith, 1997), Antonucci (e.g., Antonucci & Akiyama, 1987; Kahn & Antonucci, 1980), and Cohen (e.g., Cohen & Wills, 1985; Cohen, Mermelstein, Kamarck, & Hoberman, 1985). *Social support* is distinguished from other constructs related to social interaction (e.g., attachment, relationship satisfaction, socialization), in that social support is focused on the resources provided through social relationships with others. Other people can provide a broad swath of resources, such as emotional warmth, companionship, praise, caregiving, practical advice, problem-solving, and help with concrete tasks, and so social support can manifest in a wide range of ways. Social support can also come from a wide variety of sources, including friends, family, coworkers, teachers, and even strangers. It is an inherently multidimensional and heterogeneous concept. At least in part for that reason, many researchers have noted that social support is a broad, complex, and often vaguely or inconsistently defined construct (Barrera, 1986; Procidano & Heller, 1983; Newcomb, 1990; Antonucci, Ajrouch, & Birditt, 2014). The field of social support has struggled to attain coherence among a multitude of sub-constructs, measures, and theories.

Nonetheless, some important conclusions have come out of this body of literature, and several are relevant to the present study.

1. Social support may protect against the negative effects of stress.

Much of the early research on social support focused on testing the buffering hypothesis: the proposition that social support protects individuals as a buffer against stressful life events (Cohen & Wills, 1985; Cohen et al., 1985). This work sought to determine whether the main benefits of social support exist ambiently, at all times, or whether they are triggered by specific stressors, and only "kick in" in times of difficulty. While the conclusion of this debate was not terribly surprising (both perspectives are correct to some extent; Cohen & Wills, 1985), the outcome of the debate was a large body of literature exploring the connections between social support and positive outcomes.

The overarching message of this literature is that adequate social support is an important contributor to positive adjustment, and a protective factor against mental and physical illness (Cohen & Wills, 1985; Schwarzer & Leppin, 1991; Uchino, Cacioppo, & Kiecolt-Glaser, 1997). At the extremes, individuals with adequate social support are at lower risk of suicidal ideation (Hirsch & Barton, 2011), whereas those who are socially isolated are at higher risk (Bearman & Moody, 2004; Conwell, Duberstein, & Caine, 2002; Trout, 1980). In general, mortality is also higher among individuals with lower levels of social support (Berkman & Syme, 1979; House, Robbins, & Metzner, 1982; Blazer, 1982; Penninx, Tilburg, Kriegsman, Deeg, Boeke, & van Eijk, 1997). At more normative levels, studies have demonstrated that individuals with higher levels of social

support have lower levels of depressive symptomatology (e.g., Reis, Azmitia, Syed, Radmacher, & Gills, 2009; Rueger et al., 2016; see Santini, Koyanagi, Tyrovolas, Mason, & Haro, 2015, for a systematic review). Thus, the connection between social support and mental-health outcomes is well established in the literature.

Because social support has been identified as a factor linked to positive outcomes, and because it can be relatively easily observed and influenced (compared to, e.g., genetic risk factors), social support is a popular target for interventions that are ultimately aimed at improving mental health (see Hogan et al., 2002, for a review). While these types of interventions are often at least somewhat successful, the mechanisms for their effects are still quite unclear, in part because of the wide range of conceptualizations of social support, different intervention protocols, and different outcomes targeted – also in part because, as Hogan and colleagues (2002) discovered, many tests of social support interventions do not actually include any measure of social support. Thus, while interventions to improve social support are often successful, it is not yet clear how they work.

An important underlying question that has not been definitively answered in the literature is whether social support causes mental health, through the positive influence of supportive others, or whether mental well-being causes social support, by attracting others who can serve as supportive resources. For instance, research with veterans reveals that positive social support can help prevent, and facilitate recovery from, mental health problems such as PTSD (Evans, Cowlishaw, & Hopwood, 2009; Meis, Barry, Kehle, Erbes, & Polusny, 2010). Conversely, PTSD symptoms, especially the

avoidance/numbing cluster of symptoms, may interfere with the formation and maintenance of positive social relationships (e.g., Evans, McHugh, Hopwood, & Watt, 2003; Solomon, Dekel, & Mikulincer, 2008). The proposed study is not directly aimed at answering this chicken-and-egg question, but it does include longitudinal data on social support, which may help clarify the direction of any effects that are found.

2. *Subjectively perceived social support is more closely related to mental-health outcomes than either the objective characteristics of one's support network, or the amount of support actually received through social relationships.*

As discussed above, social support is a complex and multidimensional construct, though certain dimensions have attracted substantial attention from researchers (Barrera, 1986). The accumulated literature suggests that certain definitions of social support may be more fruitful targets of study, as they appear to be more directly and strongly related to outcomes of interest. In particular, *perceived social support*, or the subjective feeling of being reliably connected to others, and the confidence that others would be available for support if needed, appears to be the form of social support most closely related to mental-health outcomes (Barrera, 1986; Antonucci, Fuhrer, & Dartigues, 1997; Blazer, 1982; Antonucci et al., 2014; Dubow & Ullman, 1989). Here, I contrast perceived social support with other measures of social support (i.e., social network characteristics, and received social support), and the reasons why perceived social support has emerged as a focal construct in the broader literature on social support.

One alternative to measuring perceived social support is to study *social network characteristics*, such as the number of people included in the network, and the variety of

relationships represented (e.g., friend, family, neighbors; Cohen & Wills, 1985; Chu et al., 2010; Barrera, 1986). These measures are attractive in that they are relatively objective, observable, quantifiable measures, and as such, they may avoid biases associated with subjective self-report measures. However, empirical work has questioned their utility in predicting mental-health outcomes of interest. Studies of the relation between size of one's social network and the functional support provided reveal a relatively weak relationship, suggesting that the size of one's network may not correspond very well to the quality of support it can provide (Cohen & Wills, 1985; Antonucci, Fuhrer, & Dartigues, 1997; Blazer, 1982; Antonucci et al., 2014; Dubow & Ullman, 1989). For example, two or three close friends may be very fulfilling to one person, but a large network of superficial relationships may leave another person feeling very lonely and unsupported. In sum, it appears that quality is more important than quantity when determining the effects of social support on mental-health outcomes of interest.

A second common alternative to measuring perceived social support is measuring *received social support*, or the resources and support that a person believes they have actually received from others, as opposed to the hypothetical level of support they would expect to be available if needed (Antonucci et al., 2014; Chu et al., 2010). An advantage of measuring received social support is that it is based in real, as opposed to hypothetical, supportive action (though, it should be noted that received social support is often measured by self-report, and so it is still filtered through the individual's subjective perceptions). However, as in the case of social network characteristics, the empirical

work on received social support suggests it is not as strong a predictor of mental-health outcomes as perceived social support (e.g., Wethington & Kessler, 1986; Taylor et al., 2004). There are several possible reasons why received social support may not be as strongly associated with positive outcomes as perceived social support is. For example, having to ask for help may make an individual feel vulnerable or burdensome, which may increase stress (Bolger, Zuckerman, & Kessler, 2000). The help that is received may not match the individual's needs, or may be perceived as intrusive (e.g., Cohen & McKay, 1984; Cohen & Wills, 1985; Lewis & Rook, 1999; Shumaker & Hill, 1991). For these, and perhaps other reasons, received social support appears to be less closely related to positive mental-health outcomes than perceived social support.

The arguments outlined above suggest that, among social support measures, perceived social support may be the most powerful predictor of mental-health outcomes, and therefore an appropriate target for studies attempting to understand the mechanisms by which social interaction influences well-being. Accordingly, the proposed study focuses on perceived social support, rather than other social support constructs.

3. *Social support is moderately stable over time, but may change substantially in response to disruptive life events.*

An important foundational question to the proposed study is: how does social support change over time, if at all? The small body of literature that examines the development of social support over time suggests that social support tends to be fairly stable, but also that individuals can experience substantial change in their level of social support. Very little longitudinal work examines change in social support over time, with

most of this research focused on aging populations, in response to concerns about older adults losing social connections as they age (Antonucci, 1985). For example, longitudinal studies of the size of aging adults' social networks suggest that, although the average network size remains fairly stable over time, this mean-level stability masks losses and gains in individual networks, which can vary widely over time (Van Tilburg, 1998; Wenger, 1986; Bowling et al., 1995). Certain types of perceived support, such as provision of material, financial, or physical help, normatively increase with age, as older adults require more assistance with activities of daily living and friends and family are increasingly willing to help (e.g., Stoller & Pugliesi, 1991; Tilburg, 1998).

Beyond aging populations, very little research examines change in social support over time. One study of college students calculated test-retest correlations for satisfaction with social support at baseline, two months, five months, and thirty-six months (Sarason, Sarason, & Shearin, 1986). This study found that satisfaction with social support was stable over short periods of two to five months, but susceptible to more substantial change by thirty-six months. In comparison, size of social network was much more stable over time.

These findings are consistent with social convoy theory, a dominant theoretical framework in the social support literature (Antonucci et al., 2014; Kahn & Antonucci, 1980). Social convoy theory conceptualizes the social network as a convoy, or a surrounding group that travels with an individual through their lifespan. Members of the convoy may be closer to the focal individual or farther away, depending on the closeness and intimacy of their relationship. Individual members may enter or leave the convoy at

different times in life, and in the case of major transitions like moving residences, starting school, or retiring, large portions of the convoy may change.

To summarize, empirical evidence and theory suggest that levels of social support are relatively stable over time, but also that individuals may experience dramatic changes in their levels of social support, depending on their life circumstances. These results point to the importance of using longitudinal methods and a combination of both variable- and person-centered approaches that can appreciate the variability in trajectories of social support over time. The present study adopts these methods, in an effort to document and explain both mean-level and individual-level stability and change in social support over time.

A consistent blind spot in this body of literature is a lack of research on the mechanisms that cause stability and change in social support. The vast majority of studies on social support examine the consequents of social support for mental health and well-being. In other words, social support is treated as an input, and mental-health outcomes, such as depressive symptoms, or suicidal ideation, are treated as the output. Relatively few studies examine social support as an *outcome*, and so we have substantially less knowledge about where social support comes from – how individuals are able to develop and maintain positive, supportive social networks, and confidence in their social relationships, across their lives.

One exception is a longitudinal study of the impact of self-esteem on social support in adolescents, which revealed that increasing self-esteem predicts improvements in social support quality and increased network size (Marshall, Parker, Ciarrochi, &

Heaven, 2014). Compared to the vast body of literature that treats social support as a predictor, studies like this that examine social support as an outcome are few and far between. The present study addresses this major gap in the literature by examining identity factors that may contribute to the development of social support over time.

Linking Identity Development and Social Support

In the proposed study, I will extend this body of literature by examining the links between social support and identity development. There are several reasons to predict that identity development would be linked with social support. Drawing on theory, Erikson (1986) and other theorists (e.g., Bruner, 1990) acknowledged the important role that others play in shaping individuals' personal identities. Indeed, empirical work on ethnic and racial identity development reveals that family and peers can be important forces in shaping ethnic identity (e.g., Hughes et al., 2006; Umaña-Taylor et al., 2009; Huang & Stormshak, 2011). Considering the opposite causal direction, identity adjustment may be an important precursor for social support because close, intimate, supportive relationships require sharing one's authentic self with others (Pachankis, 2007; Newheiser & Barreto, 2014; Turner, Hewstone, & Voci, 2007). In Erikson's (1968) classic theory, the developmental stage following the *identity vs. role confusion* stage is *intimacy vs. isolation*, suggesting that the identity development that normatively occurs in adolescence and young adulthood lays the foundation of development of close, intimate relationships in adulthood. However, relatively few empirical studies directly address the interplay between identity and social support.

I collected those studies that examined the relation between identity and social support through a systematic search. I conducted the search using the database PsycInfo, searching for combinations of the terms (social support OR social relationships OR emotional support OR instrumental support) AND (identity OR sense of self OR personal persistence OR persistence). The search was limited to the title and abstract fields, and to research pertaining to adult populations age 18 and older. This search returned 1069 results. I screened abstracts for relevance to the present study. Sources that did not directly include any analysis or discussion of the intersection between identity and social support constructs were omitted from the remainder of the review (e.g., articles that included analyses of both identity and social support, but did not examine their relation to each other, were excluded). Sources were also excluded if they focused on child or adolescent populations, if they were not empirical studies (e.g., literature reviews), and if no abstract was available through the database. My initial screening narrowed the pool to 139 sources. The ten most-cited (number of citations ranging from 100 to 407) of these sources are summarized in Table 1.

Several patterns emerged from this review of the literature. Below, I summarize the main conclusions of my literature review:

- Topics range widely, but tend to focus on significant developmental and life transitions (e.g., marriage, "coming out," immigration). These topics are evident in the highly-cited articles summarized in the table. Other topics and focal populations that appeared regularly among the 139 screened articles included ethnic identity, athletes, and aging adults.

- A large proportion of the literature focuses on LGBT populations and the disclosure of sexual identity. The consensus of this literature appears to be that social support and disclosure are positively correlated.
- Fields of study range from psychology to social work, family studies, and sociology.
- Most of this research has been conducted from the late 1990's onward.
- Most of the highly-cited work on identity and social support uses quantitative, cross-sectional methods. Missing from this chart are many infrequently-cited qualitative, cross-sectional studies. Few researchers study these topics using longitudinal designs.
- Most studies use correlational methods.
- Many studies include social support and identity, and analyses of the relations between them, but are not primarily focused on these constructs.
- Most studies rely on convenience samples. These highly-cited studies often include unique samples that range in age, and are recruited outside of colleges. However, this masks a general tendency to rely on college samples, which is evident among the infrequently-cited studies omitted from the chart.
- Social support spontaneously emerges as a theme in semi-structured interviews about identity; similarly, identity spontaneously emerges as a theme in semi-structured interviews about relationships, suggesting that the concepts are inherently closely related.
- Measures of social support vary widely.

- Measures and definitions of identity vary widely, and tend to focus on social or collective identity, as opposed to personal identity.

A final conclusion relates to the literature that was excluded from this search. I decided sources that examined social support and identity as predictors of a third variable, but that did not examine connections between them explicitly; this turned out to be a large proportion of the 1069 studies returned in my initial search. Social support and identity are often studied in parallel (e.g., Meijer, Gebhardt, Van Laar, Kawous, & Beijk, 2016) when examining their influence on some outcome of interest (e.g., quitting smoking), as they are both frequently seen as protective, buffering, or health-promoting factors. However, there is substantially less literature directly examining the relations between social support and identity themselves. Among those studies that do address the links between identity and social support, most focus on social identity, rather than personal identity (e.g., Walsh, Muldoon, Gallagher, & Fortune, 2015). This is not surprising given the conceptual links between social support and social identity: both depend, by definition, on social relationships and integration within a social network.

The proposed study addresses several of the gaps identified through this literature search. It examines both social and personal identities, and their direct relation to social support. It employs both qualitative and quantitative methods, with longitudinal data on social support and mental-health outcomes of interest. It relies on a systematically recruited veteran sample, rather than college students or convenience samples. Furthermore, it focuses on conceptualizations of social support and identity that have emerged from their respective literatures as consensus concepts, that are frequently

studied by others, which will help ensure that this study makes a productive contribution to existing bodies of literature.

Literature Review References

Adler, J. M., Skalina, L. M., & McAdams, D. P. (2008). The narrative reconstruction of psychotherapy and psychological health. *Psychotherapy Research, 18,* 719–734.

Adler, J. M. (2012). Living into the story: Agency and coherence in a longitudinal study of narrative identity development and mental health over the course of psychotherapy. *Journal of Personality and Social Psychology*, *102*(2), 367-389.

Anthis, K. S. (2002). On the calamity theory of growth: The relationship between stressful life events and changes in identity over time. *Identity: An International Journal of Theory and Research, 2*, 229–240.

Antonucci, T. C., & Akiyama, H. (1987). Social networks in adult life and a preliminary examination of the convoy model. *Journal of Gerontology*, *42*(5), 519-527.

Antonucci, T. C., Ajrouch, K. J., & Birditt, K. S. (2014). The convoy model: Explaining social relations from a multidisciplinary perspective. *The Gerontologist, 54*(1), 82-92.

Antonucci, T. C. (1985). Personal characteristics, social support, and social behavior. In R. H. Binstock & E. Shanas (Eds.), *Handbook of aging and the social sciences* (2nd ed., pp. 94–128). New York: Van Nostrand Reinhold.

Antonucci, T. C., Fuhrer, R., & Dartigues, J. F. (1997). Social relations and mental health in a sample of community dwelling French elderly. *Psychology and Aging*, *12*, 189–195.

Azmitia, M., Syed, M., & Radmacher, K. (2013). Finding your niche: Identity and emotional support in emerging adults' adjustment to the transition to college. *Journal of Research on Adolescence*, *23*(4), 744-761.

Baddeley, J., & Singer, J. A. (2010). A loss in the family: Silence, memory, and narrative identity after bereavement. *Memory, 18,* 198–207.

Barrera, M. (1986). Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology, 14*, 413–445.

Bauer, J. J., & McAdams, D. P. (2004). Personal growth in adults' stories of life transitions. *Journal of Personality, 72*(3), 573-603.

Baum, E. S., & Rude, S. S. (2013). Acceptance-enhanced expressive writing prevents symptoms in participants with low initial depression. *Cognitive Therapy and Research, 37,* 35–42.

Bearman, P.S., & Moody, J. (2004). Suicide and friendships among American adolescents. *American Journal of Public Health, 94*, 89-95.

Berkman, L. F., & Syme, S. L. (1979). Social networks, host resistance, and mortality: A nine-year follow-up study of Alameda county residents. *American Journal of Epidemiology*, *109*, 186–204.

Blanchard, E. B., Jones-Alexander, J., Buckley, T. C., & Forneris, C. A. (1996). Psychometric properties of the PTSD Checklist (PCL). *Behaviour Research and Therapy, 34*, 669–673.

Blazer, D. G. (1982). Social support and mortality in an elderly community population. *American Journal of Epidemiology*, *115*, 684–694.

Bolger, N., Zuckerman, A., & Kessler, R. C. (2000). Invisible support and adjustment to stress. *Journal of Personality and Social Psychology, 79,* 953–961.

Bosma, H. A., & Kunnen, E. S. (2001). Determinants and mechanisms in identity development: A review and synthesis. *Developmental Review, 21,* 39–66.

Bowling, A., Grundy, E., & Farquhar, M. (1995). Changes in network composition among the very old living in inner London. *Journal of Cross-Cultural Gerontology, 10*, 331-347.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.

Chandler, M. J., Lalonde, C. E., Sokol, B. W., & Hallett, D. (2003). Personal persistence, identity development, and suicide: A study of native and non-native North American adolescents. *Monographs of the Society for Research in Child Development,* 68, 1–138.

Chu, P. S., Saucier, D. A., & Hafner, E. (2010). Meta-analysis of the relationships between social support and well-being in children and adolescents. *Journal of Social and Clinical Psychology, 29*(6), 624-645.

Cohen, S., & McKay, G. (1984). Social support, stress, and the buffering hypothesis: A theoretical analysis. In A. Baum, S. E. Taylor, & J. Singer (Eds.), *Handbook of psychology and health* (Vol. 4, pp. 253–268). Hillsdale, NJ: Erlbaum.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*(2), 310-357.

Cohen, S. Mermelstein, R., Kamark, T., Hoberman, H. M. (1985). Measuring the

functional components of social support. In: I. G. Sarason, & B. R. Sarason (Eds.), *Social support: theory, research and applications* (pp. 310–357). Boston: Martinus Nijhoff.

Conwell, Y., Duberstein, P. R., & Caine, E. D. (2002). Risk factors for suicide in later life. *Biological Psychiatry*, *52*(3), 193-204.

Cooper, C. R. (1987). Conceptualizing research on adolescent development in the family: Four root metaphors. *Journal of Adolescent Research, 2*(3), 321-330.

Demers, A. (2011). When veterans return: The role of community in reintegration. *Journal of Loss and Trauma*, *16*(2), 160-179.

Derogatis, L. R. (2000). *Brief Symptom Inventory (BSI) 18: Administration, scoring, and procedures manual*. Minneapolis, MN: NCS Pearson.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71-75.

Dubow, E. F., & Ullman, D. G. (1989). Assessing social support in elementary school children: The survey of children's social support. *Journal of Clinical Child Psychology, 18,* 52–64.

Dunlop, W. L., & Tracy, J. L. (2013). Sobering stories: Narratives of self-redemption predict behavioral change and improved health among recovering alcoholics. *Journal of Personality and Social Psychology, 104*(3), 576-590.

Erikson, E. H. (1946). Plans for the returning veteran. In L. Wirth, E. R. Hilgard, I. J. Quillen (Eds.)., *Community planning for peacetime living: Report of the 1945*

Stanford Workshop on Community Leadership. Stanford University Press, Stanford University, CA.

Erikson, E. H. (1950). *Childhood and society.* New York: Norton.

Erikson, E. H. (1968). *Identity: Youth and crisis.* New York: Norton

Erikson, E. H., Erikson, J. M., & Kivnick, H. Q. (1986). *Vital involvement in old age.* New York: W. W. Norton.

Evans, L., Cowlishaw, S., & Hopwood, M. (2009). Family functioning predicts outcomes for veterans in treatment for chronic posttraumatic stress disorder. *Journal of Family Psychology, 23,* 531–539.

Evans, L., McHugh, T., Hopwood, M., & Watt, C. (2003). Chronic posttraumatic stress disorder and family functioning of Vietnam veterans and their partners. *Australian and New Zealand Journal of Psychiatry, 37,* 765−772.

Foa, E. (1995). *Posttraumatic Stress Diagnostic Scale manual*. Minneapolis, MN: National Computer Systems.

Foa, E.B., Cashman, L., Jaycox, L., & Perry, K. (1997). The validation of a self-report measure of posttraumatic stress disorder: The Posttraumatic Diagnostic Scale. *Psychological Assessment,* 9, 445-451.

Hammack, P. L. (2008). Narrative and the cultural psychology of identity. *Personality and Social Psychological Review, 12*(3), 222-247.

Hirsch, J. K., & Barton, A. L. (2011). Positive social support, negative social exchanges, and suicidal behavior in college students. *Journal of American College Health*, *59*(5), 393-398.

Hobson, C. J., Kamen, J., Szostek, J., Nethercut, C. M., Tiedmann, J. W., & Wojnarowicz, S. (1998). Stressful life events: A revision and update of the social readjustment rating scale. *International Journal of Stress Management, 5,* 1–23.

Hogan, B. E., Linden, W., & Najarian, B. (2002). Social support interventions: Do they work? *Clinical Psychology Review, 22,* 381-440.

Hogg, M. A., & Smith, J. R. (2007). Attitudes in social context: A social identity perspective. *European Review of Social Psychology, 18*, 89–131.

House, J. S., Robbins, C., & Metzner, H. L. (1982). The association of social relationships and activities with mortality: Prospective evidence from the Tecumseh community health study. *American Journal of Epidemiology*, *116*, 123–140.

Huang, C. Y., & Stormshak, E. A. (2011). A longitudinal examination of early adolescence ethnic identity trajectories. *Cultural Diversity and Ethnic Minority Psychology*, *17*(3), 261.

Hughes, D., Rodriguez, J., Smith, E. P., Johnson, D. J., Stevenson, H. C., & Spicer, P. (2006). Parents' ethnic-racial socialization practices: A review of research and directions for future study. *Developmental Psychology, 42,* 747–770.

Jung, T., & Wickrama, K. A. S. (2008). An introduction to latent class growth analysis and growth mixture modeling. *Social and Personality Psychology Compass, 2*(1), 302-317.

Kahn, R. L., & Antonucci, T. C. (1980). Convoys over the lifecourse: attachment, roles, and social support. In: P. B. Baltes, & O. Brim (Eds.), *Life-span development*

and behavior (vol. 3, pp. 253–286). New York: Academic Press.

King, L. A., & Raspin, C. (2004). Lost and found possible selves, subjective well-being, and ego development in divorced women. *Journal of Personality, 72,* 603–632.

King, D.W., King, L.A., & Vogt, D.S. (2003). *Manual for the Deployment Risk and Resilience Inventory (DRRI): A collection of measures for studying deployment-related experiences of military veterans.* Boston, MA: National Center for PTSD.

Kroenke, K., Strine, T. W., Spitzer, R. L., Williams, J. B. W., Berry, J. T., & Mokdad, A. H. (2009). The PHQ-8 as a measure of current depression in the general population. *Journal of Affective Disorders, 114,* 163–173.

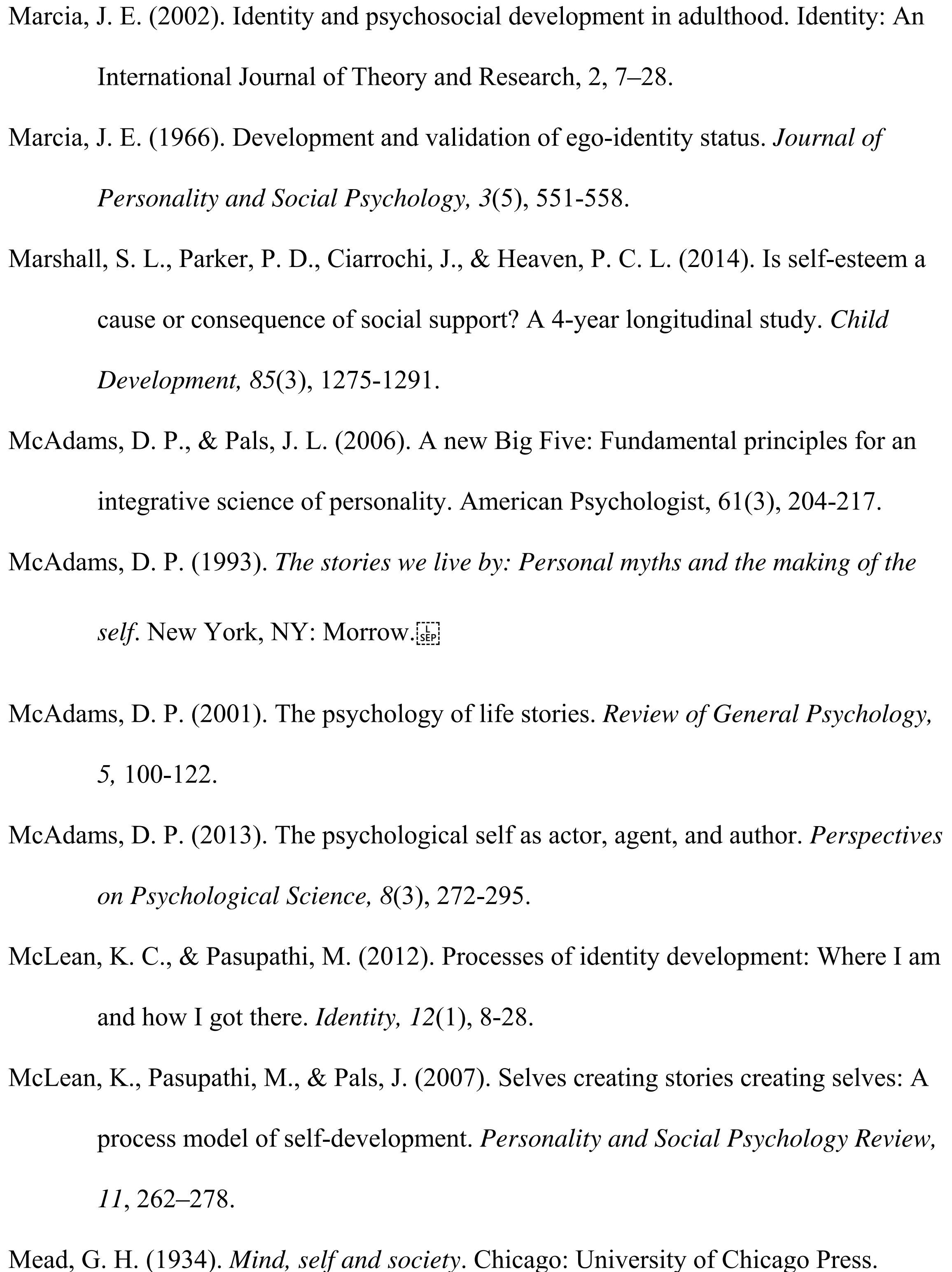
Kroger, J., & Marcia, J. E. (2011). The identity statuses: Origins, meanings, and interpretations. In S. J. Schwartz, K. Luyckx, V. L. Vignoles (Eds.), *Handbook of identity theory and research, vol. 1* (pp. 31–53). New York: Springer.

Kroger, J., & Green, K. E. (1996). Events associated with identity status change. *Journal of Adolescence, 19*, 477-490.

Kroger, J. (2015). Identity development through adulthood: The move toward "wholeness." In (K. C. McLean & M. Syed, Eds.) *The Oxford handbook of identity development* (pp. 65-95). Oxford: Oxford University Press.

Lewis, M. A., & Rook, K. S. (1999). Social control in personal relationships: Impact on health behaviors and psychological distress. *Health Psychology, 18,* 63–71.

Marcia, J. E., Waterman, A. S., Matteson, D. R., Archer, S. L., & Orlofsky, J. L. (Eds.), (1993). *Ego identity: A handbook for psychosocial research*. New York: Springer Verlag.



Marcia, J. E. (2002). Identity and psychosocial development in adulthood. Identity: An International Journal of Theory and Research, 2, 7–28.

Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology, 3*(5), 551-558.

Marshall, S. L., Parker, P. D., Ciarrochi, J., & Heaven, P. C. L. (2014). Is self-esteem a cause or consequence of social support? A 4-year longitudinal study. *Child Development, 85*(3), 1275-1291.

McAdams, D. P., & Pals, J. L. (2006). A new Big Five: Fundamental principles for an integrative science of personality. American Psychologist, 61(3), 204-217.

McAdams, D. P. (1993). *The stories we live by: Personal myths and the making of the self*. New York, NY: Morrow.

McAdams, D. P. (2001). The psychology of life stories. *Review of General Psychology, 5,* 100-122.

McAdams, D. P. (2013). The psychological self as actor, agent, and author. *Perspectives on Psychological Science, 8*(3), 272-295.

McLean, K. C., & Pasupathi, M. (2012). Processes of identity development: Where I am and how I got there. *Identity, 12*(1), 8-28.

McLean, K., Pasupathi, M., & Pals, J. (2007). Selves creating stories creating selves: A process model of self-development. *Personality and Social Psychology Review, 11*, 262–278.

Mead, G. H. (1934). *Mind, self and society*. Chicago: University of Chicago Press.

Meijer, E., Gebhardt, W. A., Van Laar, C., Kawous, R., & Beijk, S. C. A. M. (2016). Socio-economic status in relation to smoking: The role of (expected and desired) social support and quitter identity. *Social Science & Medicine, 162*, 41-49.

Meis, L. A., Erbes, C. R., Polusny, M. A., & Compton, J. S. (2010). Intimate relationships among returning soldiers: The mediating and moderating roles of negative emotionality, PTSD symptoms, and alcohol problems. *Journal of Traumatic Stress, 23*(5), 564-572.

Mello, Z. R., Finan, L. J., & Worrell, F. C. (2013). Introducing an instrument to assess time orientation and time relation in adolescents. *Journal of Adolescence, 36*(3), 551-563.

Mitchell, L. L., & Syed, M. (2015). Does college matter for emerging adulthood? Comparing developmental trajectories of educational groups. *Journal of Youth and Adolescence, 44*(11), 2012-2027.

Newcomb, M. D. (1990). Social support by many other names: Toward a unified conceptualization. *Journal of Social and Personal Relationships, 7*, 479-494.

Newheiser, A. K., & Barreto, M. (2014). Hidden costs of hiding stigma: Ironic interpersonal consequences of concealing a stigmatized identity in social interactions. *Journal of Experimental Social Psychology*, *52*, 58-70.

Nurmi, J. E. (1991). How do adolescents see their future? A review of the development of future orientation and planning. *Developmental Review, 11,* 1–59.

Orazem, R. J., Frazier, P. A., Schnurr, P. P., Oleson, H. E., Carlson, K. F., Litz, B. T., & Sayer, N. A. (2016). Identity adjustment among Afghanistan and Iraq war

veterans with reintegration difficulty. *Psychological Trauma: Theory, Research, Practice and Policy*.

Oyserman, D., & Markus, H. (1990). Possible selves and delinquency. *Journal of Personality and Social Psychology, 59,* 112–125.

Pachankis, J. E. (2007). The psychological implications of concealing a stigma: A cognitive-affective-behavioral model. *Psychological Bulletin, 133,* 328–345.

Pals, J. L. (2006). Narrative identity processing of difficult life experiences: Pathways of personality development and positive self-transformation in adulthood. *Journal of Personality, 74*(4), 1079-1110.

Pasupathi, M., Mansour, E., & Brubaker, J. R. (2007). Developing a life story: Constructing relations between self and experience in autobiographical narratives. *Human Development*, *50*, 85-110.

Pennebaker, J. W. (2013). *Writing and health: Some practical advice*. Retrieved from http://homepage.psy.utexas.edu/homepage/Faculty/ Pennebaker/Home2000/WritingandHealth.html

Penninx, B. W. J. H., van Tilburg, T., Kriegsman, D. M. W., Deeg, D. J. H., Boeke, A. J. P., & van Eijk, J. T. M. (1997). Effects of social support and personal coping resources on mortality in older age: The Longitudinal Aging Study Amsterdam. *American Journal of Epidemiology, 146,* 510-519.

Pietrzak, R. H., Johnson, D. C., Goldstein, M. B., Malley, J. C., & Southwick, S. M. (2009). Psychological resilience and postdeployment social support protect against traumatic stress and depressive symptoms in soldiers returning from

Operations Enduring Freedom and Iraqi Freedom. *Depression and Anxiety*, *26*(8), 745-751.

Procidano, M. E., & Heller, K. (1983). Measures of perceived social support from friends and from family: Three validation studies. *American Journal of Community Psychology*, *11*(1), 1-24.

Procidano, M.E., & Smith, W.W. (1997). Assessing perceived social support: The importance of context. In G.R. Pierce & B. Lakey (Eds.), *Sourcebook of social support and personality; Plenum series in social/clinical psychology* (pp. 93-106). New York: Plenum Press.

Reis, O., Azmitia, M., Syed, M., Radmacher, K., & Gills, J. (2009). Patterns of social support and mental health among ethnically-diverse adolescents during school transitions. *European Journal of Developmental Science, 3*, 39–50.

Rosenthal, D. A., Gurney, R. M., & Moore, S. M. (1981). From trust to intimacy: A new inventory for examining Erikson's stages of psychosocial development. *Journal of Youth and Adolescence, 10*(6), 525-537.

Rueger, S. Y., Malecki, C. K., Pyun, Y., Aycock, C., & Coyle, S. (2016). A meta-analytic review of the association between perceived social support and depression in childhood and adolescence. *Psychological Bulletin, 142*(10), 1017-1067.

Santini, Z. I., Koyanagi, A., Tyrovolas, S., Mason, C., & Haro, J. M. (2015). The association between social relationships and depression: A systematic review. *Journal of Affective Disorders, 175,* 53–65.

Sarason, I. G., Sarason, B. R., & Shearin, E. N. (1986). Social support as an individual

difference variable: its stability, origins, and relational aspects. *Journal of Personality and Social Psychology*, 50, 845–855.

Sayer, N. A., Noorbaloochi, S., Frazier, P., Carlson, K., Gravely, A., & Murdoch, M. (2010). Reintegration problems and treatment interests among Iraq and Afghanistan combat veterans receiving VA medical care. *Psychiatric Services*, *61*(6), 589-597.

Sayer, N. A., Frazier, P., Orazem, R. J., Murdoch, M., Gravely, A., Carlson, K. F., . . . Noorbaloochi, S. (2011). Military to civilian questionnaire: A measure of postdeployment community reintegration difficulty among veterans using Department of Veterans Affairs medical care. *Journal of Traumatic Stress, 24,* 660 – 670.

Sayer, N. A., Noorbaloochi, S., Frazier, P. A., Pennebaker, J. W., Orazem, R. J., Schnurr, P. P., . . . Litz, B. T. (2015). Randomized controlled trial of online expressive writing to address readjustment difficulties among U.S. Afghanistan and Iraq war veterans. *Journal of Traumatic Stress, 28,* 381–390.

Schwab, K. A., Ivins, B., Cramer, G., Johnson, W., Sluss-Tiller, M., Kiley, K., . . . Warden, D. (2007). Screening for traumatic brain in- jury in troops returning from deployment in Afghanistan and Iraq: Initial investigation of the usefulness of a short screening tool for traumatic brain injury. *Journal of Head Trauma Rehabilitation*, *22*, 377–389.

Schwarzer, R., & Leppin, A. (1991). Social support and health: A theoretical and empirical overview. *Journal of Social and Personal Relationships, 8,* 99–127.

Shumaker, S. A., & Hill, D. R. (1991). Gender differences in social support and physical health. *Health Psychology, 10,* 102–111.

Singer, J. A., & Kasmark, A. M. (2015). A translational research approach to narrative identity in psychotherapy. In (K. C. McLean & M. Syed, Eds.) *The Oxford handbook of identity development* (pp. 65-95). Oxford: Oxford University Press.

Solomon, Z., Dekel, R., & Mukulincer, M. (2008). Complex trauma of war captivity: A prospective study of attachment and post-traumatic stress disorder. *Psychological Medicine, 38*(10), 1427-1434.

Solomontos-Kountouri, O., & Hatzittofi, P. (2016). Brief report: Past, present, emergent and future identities of young inmates. *Journal of Adolescence, 47*, 119-124.

Stephen, J., Fraser, E., & Marcia, J. E. (1992). Lifespan identity development: Variables related to Moratorium-Achievement (MAMA) cycles. *Journal of Adolescence, 15,* 283–300.

Stoller, E. P., & Pugliesi, K. L. (1991). Size and effectiveness of informal helping networks: A panel study of older people in the community. *Journal of Health and Social Behavior,* 32, 180-19.

Syed, M., & McLean, K. C. (2016). Understanding identity integration: Theoretical, methodological, and applied issues. *Journal of Adolescence*, *47*, 109-118.

Syed, M., & Mitchell, L. L. (2015). Temporal identity integration as a core developmental process. In R. Scott, & S. Kosslyn (Eds.), Emerging trends in the social and behavioral sciences (pp. 1-15). San Francisco, CA: Wiley.

Syed, M., Azmitia, M., & Cooper, C. R. (2011). Identity and academic success among under-represented ethnic minorities: An interdisciplinary review and integration. *Journal of Social Issues, 67*(3), 442-468.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. C. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-53). Monterey, CA: Brooks Cole.

Taylor, S. E., Sherman, D. K., Kim, H. S., Jarcho, J., Takagi, K., & Dunagan, M. S. (2004). Culture and social support: Who seeks it and why? *Journal of Personality and Social Psychology, 87*(3), 354-362.

Trout, D. L. (1980). The role of social isolation in suicide. *Suicide and Life-Threatening Behavior*, *10*(1), 10-23.

Turner, R. N., Hewstone, M., & Voci, A. (2007). Reducing explicit and implicit outgroup prejudice via direct and extended contact: The mediating role of self-disclosure and intergroup anxiety. *Journal of Personality and Social Psychology, 93,* 369–388.

Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1997). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin, 119*, 488-531.

Umaña-Taylor, A. J., Gonzales-Backen, M. A., & Guimond, A. B. (2009). Latino adolescents' ethnic identity: Is there a developmental progression and does growth in ethnic identity predict growth in self-esteem? *Child Development, 80*,

391–405.

V.A. Office of Public and Intergovernmental Affairs (2016). *VA conducts nation's largest analysis of veteran suicide.* Retrieved from http://www.va.gov/opa/pressrel/pressrelease.cfm?id=2801

Van Tilburg, T. (1998). Losing and gaining in old age: Changes in personal network size and social support in a four-year longitudinal study. *Journal of Gerontology: Social Sciences, 53B*(6), S313-S323.

Vignoles, V. L., Schwartz, S. J., & Luyckx, K. (2011). Introduction: Toward an integrative view of identity. In S. J. Schwartz, K. Luyckx, & V. L. Vignoles (Eds.), *Handbook of identity theory and research* (pp. 1-27). New York: Springer.

Walsh, R. S., Muldoon, O. T., Gallagher, S., & Fortune, D. G. (2015). Affiliative and "self-as-doer" identities: Relationships between social identity, social support, and emotional status amongst survivors of acquired brain injury (ABI). *Neuropsychological Rehabilitation, 25*(4), 555-573.

Weathers, F. W., Litz, B. T., Herman, D. S., Huska, J. A., & Keane, T. M. (1995). *PTSD Checklist: Military Version (PCL-M)*. Boston, MA: National Center for PTSD.

Wenger, G. C. (1986). A longitudinal study of changes and adaption in the support networks of Welsh elderly over 75. *Journal of Cross-Cultural Gerontology, 1,* 277-304.

Wethington, E., & Kessler, R. C. (1986). Perceived support, received support, and adjustment to stressful life events. *Journal of Health and Social Behavior, 27,*

78–89.

Table 1. Most-cited articles on identity and social support.

Citation	Title	Publication Source	Methods	Participants	Social support dimensions	Identity dimensions	Results
Haslam, O'Brien, Jetten, Vormedal, & Penna, 2005	Taking the strain: Social identity, social support, and the experience of stress	British Journal of Social Psychology	Multi-study, quantitative, cross-sectional	N = 34 patients recovering from heart surgery, ages 45-80; N = 20 members of a bomb disposal team, mean age 31; N = 20 bar staff members, mean age 20	Perceived social support by family or work colleagues	Social identification with family or work colleagues (e.g., "I identify with my colleagues at work")	Social identification with family or work colleagues was associated with social support, and the relation between identification and mental-health outcomes was mediated by social support.

Jordan & Deluty, 1998	Coming out for lesbian women: Its relation to anxiety, positive affectivity, self-esteem, and social support	Journal of Homo-sexuality	Quantitative, Cross-sectional	N = 499, lesbian American women, ages 19-76, recruited through snowballing and advertisements	Social network structure and function (Social Support Questionnaire; Sarason, Sarason, Shearin, & Pierce, 1987); level of satisfaction with social support	Sexual orientation (Klein Sexual Orientation Grid; Klein, Sepekoff, & Wolf, 1987); disclosure of lesbian identity (Bradford & Ryan, 1987; Schachar & Gilbert, 1983)	Disclosure predicted overall social support, with disclosure to friends being most closely related to overall social support. Disclosure also predicted level of satisfaction with social support.
Siebert, Mutran, & Reitzes, 1999	Friendship and social support: The importance of role identity to aging adults	Social Work	Quantitative, Cross-sectional	N = 747, adults ages 60-66, recruited via random selection from DMV records in North Carolina	Characteristics of network: Friend support, relative support, density of support network, frequency of contact	Friend role identity, friend role commitment	Friend role identity was associated with network density. Friend role commitment was associated with friend support. Both identity and commitment were correlated with frequency of calling and frequency of seeing friends.

Inman, Howard, Beaumont, & Walker, 2007	Cultural transmission: Influence of contextual factors in Asian Indian immigrant parents' experiences	Journal of Counseling Psychology	Qualitative, Cross-sectional	N = 16, first-generation Asian Indian immigrant parents, recruited via snowballing	Need for social support, and concerns about loss of familial support, were themes generated through qualitative analysis	Semi-structured interview prompts regarding ethnic identity (e.g., factors that helped retain or challenge aspects of ethnic identity through immigration)	Need for social support was a common reason for ethnic identity retention (e.g., desire to connect with others who shared values and activities). Loss of familial support due to immigration was a challenge for retention of ethnic identity, as family served to help maintain cultural continuity.

Berzonsky & Keating, 2006	Psychosocial resources in first-year university students: The role of identity processes and social relationships	Journal of Youth and Adolescence	Quantitative, Cross-sectional	N = 351 university students, ages 18-21	*University relations*, a composite measure of quality of social relationships with faculty, advisors, students; family cohesion; family expressiveness; family conflict	Identity status (Objective Measure of Ego Identity Status, Adams et al., 1979), identity processing style (Identity Style Inventory; Berzonsky, 1992)	University relations were negatively related to diffusion and positively related to informational style. Family cohesion was negatively related to moratorium, positively associated with normative style. Family expressiveness was negatively related to diffusion and moratorium. Family conflict was negatively related to normative style and positively related to moratorium.

Ullrich, Lutgendorf, & Stapleton, 2002	Concealment of homosexual identity, social support and CD4 cell count among HIV-seropositive gay men	Journal of Psycho-somatic Research	Quantitative, Cross-sectional	N = 73, HIV-seropositive gay men, recruited via health care centers	Social constraints (Social Constraints Scale; Lepore et al., 1996); satisfaction with social support (Social Support Questionnaire; Sarason et al., 1987)	Concealment of homosexual identity	Greater concealment of homosexual identity was associated with lower social support satisfaction and with greater social constraints.

Shil & Savaya, 2011	Effects of family and friend support on LGB youths' mental health and sexual orientation	Family Relations: Inter-disciplinary Journal of Applied Family Studies	Quantitative, Cross-sectional	N = 461, LGB adolescents and adults, ages 16-23, recruited via youth groups, advertisements and snowballing	Perceived social support by family and friends (Abbey, Abramis, & Caplan, 1985); acceptance of sexual orientation by family and friends (Ross, 1985)	LGB self-acceptance (Bell & Weinberg, 1978); sexual orientation disclosure (Ravitz, 1981)	Self-acceptance was positively related to friends support, family acceptance, and friends' acceptance. Disclosure was positively related to friends support, family acceptance, and friends' acceptance.
Elizur & Mintzer, 2001	A framework for the formation of gay male identity: Processes associated with adult attachment style and support from family and friends	Archives of Sexual Behavior	Quantitative, Cross-sectional	N = 121, gay Israeli men, ages 23-72, recruited through snowballing and advertisements	Perceived social support from family and from friends (Procidano & Heller, 1983); family supportive attitudes towards same-sex orientation (Ross, 1985)	Gay identity measures: self-definition (i.e., the extent to which an individual considers himself gay or heterosexual; Kinsey et al., 1948); self-acceptance (Bell & Weinberg, 1978); and disclosure (Ravitz, 1981)	Disclosure was positively related to accepting family attitudes, general family support, and friends support

Soliz & Harwood, 2006	Shared family identity, age salience, and intergroup contact: Investigation of the grand-parent-grandchild relationship	Communi-cation Monographs	Quantitative, Cross-sectional	N = 369, college students, ages 18-26	Perceived social support by grandparents (Quality of Relationships Inventory; Pierce, Sarason, & Sarason, 1991); quantity of contact	Shared family identity (e.g., feeling proud to be in the same family as the grandparent)	Social support was positively related to shared family identity.

Barry, Madsen, Nelson, Carroll, & Badger, 2009	Friendship and romantic relationship qualities in emerging adulthood: Differential associations with identity development and achieved adulthood criteria	Journal of Adult Development	Quantitative, Cross-sectional	N = 710, college and graduate students ages 18-26, recruited via announcements in university courses	Quality of friendships and romantic relationships (Social Provisions Questionnaire; Carbery & Buhrmester, 1998)	Identity statuses (Ego Identity Process Questionnaire; Balistreri et al., 1995)	Identity achievement was positively correlated with quality of romantic relationships.

Figure 1. Marcia's identity status model.

		Commitment	
		Present	Absent
Exploration	Present	Identity achievement	Moratorium
	Absent	Foreclosure	Diffusion