2019

Supporting Psychological Well-Being in Emerging Adults with Mental Illness: Effect of a Self-Affirmation Intervention on Resilience, Empowerment, and Self-Stigma

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Supporting Psychological Well-Being in Emerging Adults with Mental Illness:
Effect of a Self-Affirmation Intervention on Resilience, Empowerment, and Self-Stigma

A thesis presented by
Robert Blackburn Manning III
to the Department of Psychology
in partial fulfillment of the requirements
for the degree of
Bachelor of Arts

Connecticut College
New London, CT
05/01/2019
Abstract

The primary aim of this study was to investigate the applicability of an empirically-validated self-affirmation intervention, under conditions of social identity threat for mental illness, in comparison to a control intervention, on resilience, empowerment, self-esteem, hope, group identity, and self-stigma. Data were collected from Connecticut College undergraduate students who identified with having past or present difficulties with their mental health over three time points. Participants responded to four questions about their mental health history as a social identity threat induction prior to engaging in a randomly assigned intervention. They also self-assessed their levels of the primary outcomes using established resilience, stigma, empowerment, hope, self-esteem, and group identity questionnaires at baseline, post-intervention, and one week after the intervention. Repeated measures ANCOVA analyses examined whether there were statistically significant changes for those assigned to the affirmation intervention, when compared to the control condition, across time. Because of limited intervention effects, all participants were additionally considered together in backwards stepwise regression analyses examining self-stigma’s influence on resilience, empowerment, hope, group identity, and self-esteem over time. Intercorrelation results showed strong negative relationships between self-stigma and positively associated outcome constructs (e.g., resilience) at baseline. Results from the repeated measures ANOVAs showed weak trends for improvements over time in the control condition for certain aspects of resilience. Regression analyses revealed that initial self-stigma significantly predicted changes in group identity and aspects of resiliency over time. The limited benefit of self-affirmation intervention for emerging adults with mental health difficulties in the present study, as well as the unexpected therapeutic value of the “control” intervention, are areas of focus in the discussion. Findings highlighting the negative role of self-stigma support the need
for further development and refinement of interventions to foster resilience for emerging adult populations living with a stigmatized identity linked to mental health difficulties. This thesis offers some insight into how well traditional social psychological interventions translate across domains and into clinical populations.
Acknowledgements

First and foremost, I would like to thank my thesis advisor, Professor Audrey Zakriski, for all of her patience, guidance, and wisdom throughout this entire process. The completion of this project would and the direction it took would not have been possible without her many invaluable contributions. I would also like to thank Professor Nakia Hamlett for her input and feedback throughout the fall semester during our weekly group meetings. Lastly, I would like to thank my readers Professor Jason Nier and Professor Ruth Grahn for their thoughtful feedback.
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Supporting Psychological Well-Being in Emerging Adults with Mental Illness: Effects of a Self-Affirmation Intervention on Resilience, Empowerment, and Self-Stigma

People with mental health conditions encounter difficulties everyday against an onslaught of social obstacles that threaten their sense of self, achievement, and psychological well-being. As recent as Spring of 2018, data from the American College Health Association’s National College Health Assessment II (ACHA-NCHA II) showed that in college populations, 30.3% of students said they had been diagnosed or treated in the past 12 months for a mental health disorder (American College Health Association, 2018). Of the population surveyed, 42.9% of college students responded that they ‘felt so depressed it was difficult to function’, 64.3% ‘felt overwhelming anxiety’, and 13% ‘seriously considered suicide’ within the past 12 months (ACHA, 2018). Yet with such significant psychological problems only ⅓ of students had decided to seek out some type of treatment, indicating some sort of barrier is preventing them from seeking out life-saving help (AHCA, 2018). Addressing the seriousness of this issue, the United States government has identified stigma as one of the primary reasons people do not receive or seek out quality mental health care (New Freedom Commission on Mental Health, 2003). Several studies have shown that stigma, in its various forms, leads to lowered self-esteem (Corrigan & Watson, 2002), poorer academic performance, decreased treatment seeking (Corrigan, 2004), and exacerbations of co-occurring mental health symptomatology (Corrigan & Watson, 2002) resulting in overall poorer psychological well-being.

A new and promising way to negate and/or dampen the effects of stigma is through the use of resilience and self-affirmation based interventions. As opposed to the traditional medical models’ view, wherein mental health conditions are seen solely through the lens of deficits and abnormality, resilience literature reframes people living with mental health conditions as
capable, strong, empowered, and worthy. Psychological models of resilience in the face of adversity/stress (i.e. typical difficulty of life associated with mental health conditions) offer new ways to look at reducing stigma and other related psychological phenomena by focusing on positive individual traits and competencies as well as dynamic processes. Particularly, a self-affirmation approach to intervention addresses facets of the resilience construct by encouraging people to broaden their views of themselves through the acknowledgement and value of their personal strengths and their importance. Interventions that employ a self-affirmation framework have found success in reducing the negative impacts, such as lowered self-esteem, associated with other social identity threats (e.g. stereotype and stigma) in African-Americans (Cohen et al., 2006), Latinos (Sherman et al., 2013), and women (Martens et al., 2006).

The following literature review will examine relevant research and theory from multiple fields ranging from emerging adulthood to social stigma to resilience and intervention efforts to lay the foundation for the identity-affirming mental-illness stigma reduction intervention for college students tested in this thesis. The first half will address mental health conditions from a traditional deficits-based approach (e.g. medical model). The medical model has, historically, been championed by both the psychological and psychiatric communities for delineating the etiological roots and subsequent mental health outcomes of people with mental health conditions. This viewpoint will be examined for historical context and in contrast to the resilience framework at the center of this thesis, through the following literatures.

A specific focus will be on the newly conceptualized developmental stage of emerging adulthood and how deficits in identity constructs like self-esteem play a central role in the development and maintenance of mental health conditions. Social psychological literature will address how stereotype and other social threats impact performance-related outcomes while
emphasizing the need for more research done on self-esteem and resilience, among other psychological related outcomes, in populations of people with mental health conditions. Social stigma literature will be explored to contextualize social threats in relation to people with mental health conditions, examining what sets them apart from other social threats and how they create psychologically damaging effects. There will be a specific focus on self-stigma (e.g. internalized) as it pertains to the constructs investigated by the current thesis as well as presents unique problematic outcomes separate from other types and models of stigma.

The second half of the literature review for this thesis will focus on a strengths-based approach to viewing mental health conditions. The newer literature emphasizes person-centered care, recovery, agency, strengths, community, and resilience in describing the experience of living with a mental health condition. Literature focusing on resilience, its various definitions, constructs, and critiques will be identified. Paralleling this will be a review of the recovery literature which will be used to add history, context, and connections to resilience models and concepts. A review of self-affirmation theory will help enrich and connect to the literature on resilience while bringing into focus the main component of this thesis intervention approach, self-affirmation. Finally, important components of empirically-based intervention strategies in the veins of resilience, empowerment, and self-affirmation in clinical and non-clinical populations will be reviewed. These intervention strategies and case studies will serve to highlight a promising way to help support psychological wellness through promoting resilience and decreasing self-stigma.

**Emerging Adulthood**

Emerging adulthood is a relatively new conceptualization of the developmental period between adolescence and young adulthood, primarily starting in the late teens and terminating
Emerging adulthood is held distinct from young adulthood due to the heterogeneity of experiences in the late teens through mid-twenties that is not found in the early thirties. As individuals enter emerging adulthood they experience several different pathway options, especially in the fields of residential and educational status. For the ⅓ of American students who pursue college, the following years of their lives are spent in semi-independent living situations such as dormitories, greek-life housing, or college-owned apartments (Goldscheider &
Goldscheider, 1994). Meanwhile, a little less than half move out in pursuit of jobs and ⅔ spend a partial amount of time living with a romantic partner (Goldscheider & Goldscheider, 1994; Michael, Gagnon, Laumann, & Kolata, 1995). Emerging adulthood is specifically subjective; a majority of people from the age range 18-25 responded “in some respects yes, in some respects no” to a question about whether they identified as being adults (Arnett, in press). There is often confusion as to how they identify themselves and yet research shows that they distinctively mark the transition into adulthood characteristically, not demographically (Arnett, 1998). The top criteria for transition are independent decision making, accepting responsibility for their own actions, and financial stability (Arnett, 1997, 1998; Greene et al., 1992; Scheer et al., 1994).

Lastly, emerging adulthood is defined by an intense and expansive exploration of identity in the domains of love, work, and worldview (Arnett, 2000). More of this will be discussed in the following section on identity and stress.

It is important to note that this developmental stage is uniquely accessible to industrialized societies as a result of economic and cultural affordability and privileges that allow for an extended period of exploration following adolescence (Arnett, 2000). The cultural qualities necessary for access to the emerging adulthood stage of development can typically be found in college sample populations which is why this thesis will employ an analytical framework utilizing the emerging adulthood stage of development.

**Mental Health in Emerging Adulthood.** Paradoxically, emerging adulthood brings with it both positive and negative outcomes in terms of psychological well-being. Overall, there exist three main trends: mental health improves, problem behaviors decline, yet incidents of psychopathology increase (Schulenberg & Zarrett, 2006). Longitudinal studies in both Canada and the United States found that, in emerging adults, there was a decline of depressive symptoms
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and an increase in measures of self-esteem (Kroger, Martinussen, & Marcia, 2010). Meanwhile, some emerging adults experience onsets of serious mental health conditions such as major episodes of depression and substance abuse disorder (Arnett, 2007). Many emerging adults experience a great degree of anxiety and other related mood disorders as a result of identity exploration (Arnett, 2007). Arnett (2000) suggests that this may be due to the heterogeneity of experiences in the emerging adult population, although, the author of this thesis believes that identity exploration plays a prominent role in the mental health status of emerging adults.

The ephemeral consciousness commonly referred to as the self has major implications in the development and maintenance of a person's mental health. Self and identity construction, development, and exploration processes have a significant impact on the mental health of people. Erikson (1968) and other developmental psychologists have long argued that identity exploration plays a central role in the adolescent developmental stage. Using Arnett’s new developmental framework though, identity is viewed as arising in adolescence but occurring mainly in the period of emerging adulthood (Arnett, 2000). In doing so, emerging adults’ identity is often very fluid yet fragile as they try on different roles and new experiences. The main domains of identity exploration occur in the areas of work, love, and religion (Arnett, 2000, 2007) as emerging adults partake in the difficult task of figuring themselves out. It is not so much identity itself that plays such a critical role in the mental health of emerging adults but much more so the challenges to self-esteem, self-integrity, and the global sense of the self that can lead to the onset of mental health conditions and/or worsen already occurring symptomatology.

Social Identity Threats

This section will investigate the primary social and environmental threats, specific to identity and psychological well-being, that young adults with mental health conditions face on a
day-to-day basis. Broadly, a social identity threat, refers to a person’s realization that their particular group association at a given moment and in a particular environment could be used as a basis for negative evaluation by others (Cohen, Purdie-Vaughns, & Garcia, 2012). Identity exploration can be challenging even for the most affluent and resourceful of groups. This process becomes even more complicated for historically marginalized and/or oppressed populations experiencing significant threats to their identity.

**Stereotype Threat.** As there is a lack of research on the effect of social threats on populations of people with mental health conditions, which the current thesis aims to fill in, this section will tangentially focus on research done with other populations with historically devalued identities (e.g. race and gender). One of the most widely studied social threats in psychological literature is that of stereotype threat, or, the fear of confirming a negative belief about one’s own group in a domain-relevant environment (Steele, 1997; Steele & Aronson, 1995). Stereotype threat works to undermine performance and well-being by increasing stress levels and putting on more cognitive load (Schmader & Johns, 2003). Stereotype threats include three important and distinct features, presence of a negative stereotype, personal relevance and endorsement of said stereotype, and lastly, conscious attention called to said stereotype in the current situation (Steele & Aronson, 1995). The second aspect, endorsement, may not always be true though. Research later done by Steele, Spencer, and Aronson (2002) found that stereotype threats do not require people to believe in the stereotype at hand in order for them to produce negative results. In addition, disrupting stereotype threats takes an enormous amount of cognitive effort, taking away from the task at hand, negatively affecting performance-related outcomes (Steele, Spencer, & Aronson, 2002).
One major outcome of stereotype threat is that it can create disidentification with academic success and increase school dropout rates, more so for the most talented portion of the devalued group (Steele, 1997). One of the most influential mechanisms influencing stereotype threat outcomes appears to be domain-identification (Aronson et al., 1999). There is a positive relationship between an individual’s level of caring about how well they do in the situationally specific field or task and the impact on performance due to stereotype threat; the more salient the more pressure will be created (Aronson et al., 1999). Though, stereotype threat does not just affect historically devalued populations within the categories of race and gender, further research done by Aronson and colleagues (1999) has found that the negative effects of stereotype can be induced in populations with no history of stigmatization of inferiority. This lends itself to the idea that other devalued populations, like people with mental health conditions, can also suffer from socially-based identity threats. Overall though, there exists sparse research on the effects of stereotype threat on populations with mental health conditions. One study found that regardless of the type of mental health condition, participants who disclosed their status and/or a history of mental health difficulties, performed worse academically than did those who were in a no reveal condition (Quinn, Kahng, & Crocker, 2004). Another particular study on adults with ADHD found that, when explicitly primed with a stereotype threat for people with ADHD, they received significantly lower scores on the quantitative section of the GRE (Foy, 2013; Foy, 2018).

Encompassing the relevant literature described above is Cohen and Garcia’s (2008) Identity Engagement Model. The model premise is built upon the fact that events rarely occur on their own or in isolation. Indeed, many psychological, social, and environmental factors often interact through recursive cycles, making profound impacts (Cohen & Sherman, 2006). The model assesses whether the individual first thinks their identity could be the basis of
discriminatory, or negative, evaluation/treatment. If so, the identity therefore becomes “engaged” and the person would become alert for environmental cues that either confirm or disconfirm an identity threat (Cohen & Garcia, 2008). From there the model diverges, if cues are disconfirmatory, performance outcome becomes more based on individual level factors and actual ability in the task. If cues are confirmatory one of two outcomes will unfold. If people appraise both their ability and desire to cope with the threat at hand and if they evaluate that they can do the task, then normative or improved performance outcomes occur (Cohen & Garcia, 2008). Under confirmatory cues people who can think that they can neither execute the task at hand (e.g. taking the GRE) nor cope with the stress caused by the stereotype threat decreased performance outcomes will occur (Cohen & Garcia, 2008). Recursive processes can occur at almost any stage of the model introducing negative feedback loops. Cohen and Garcia’s (2008) model emphasizes that the effects of social identity threats unravel over time and as an interaction between other related psychological and environmental factors. Even though their model focuses on performance-based outcomes for racial minority groups, the model can be implemented across a number of outcomes (such as psychological well-being) and for various social identities, such as people with mental health conditions.

**Stigma**

Expanding on research done in social psychology on other social identity threats, research into the stigma of mental health conditions encapsulates processes beyond mere stereotype presence. The term stigma first became popularized in Erving Goffman’s seminal novel *Stigma: Notes on the management of spoiled identity*. In his book, Goffman (1963) defined stigma as the differential treatment and/or personal shame associated with a devalued social identity. Since Goffman’s foray into the subject, the literature has become quite expansive in
identifying root causes and the subsequent psychological effects. As a result of stigma people labeled with a mental illness have reduced access to jobs, housing and educational opportunities (Bordiere & Drehmer, 1986; Link, 1982; Manning & White, 1995), lower self-esteem (Corrigan & Watson, 2002; Corrigan, Watson, & Barr, 2006; Corrigan & Rao, 2012), are less likely to seek out treatment (Corrigan, 2004; Eisenberg, Downs, Golberstein, & Zivin, 2009; Clement et al., 2015), have higher rates of self-imposed social isolation (Corrigan & Rao, 2012; Rusch et al., 2009) and are more likely to be socially avoided by the public (Martin, Pescosolido, & Tuch, 2000). This thesis will focus on exploring models of stigma most relevant to mental health conditions such as the attributional model from Corrigan and colleagues (2003) and the modified labeling theory by Link and colleagues (1989, 2001). Across models most researchers agree upon two facts, that stigma is a socially constructed label applied to specific members of society by society (Crocker et al., 1998) and stigma dynamically operates through three psychosocial constructs: stereotypes, prejudicial attitudes, and discrimination (Corrigan, 2005). Lastly, in order to distinguish stigma from other social identity threats Link and colleagues’ (1989, 2001) labeling theories suggests that inherent in the concept of stigma is the power imbalance between those who have been labeled and those who are not, with favor of power towards the latter. Major and O’Brien (2005) argue that their labeling theories address the resulting lower-class status assigned to stigmatized groups as a result of power imbalances present in society (Link & Phelan, 2001).

As mentioned previously, stigma can be broken down into three equally important components: stereotypes, prejudicial attitudes, and discrimination. The first of these, stereotypes, forms the cognitive basis of stigma. Stereotypes serve as easy, deeply embedded, and hard to change beliefs about groups of people that can easily be reproduced through social interactions
Historically across America, there have been widespread negatively held beliefs about people with mental health conditions (Link, 1987; Phelan, Link, Stueve, & Pescosolido, 2000). Even today, these negative attitudes and harmful stereotypes of people with a mental illness are still highly prevalent and unchanging as of the past few decades (Angermeyer & Dietrich, 2006). Broadly, there exist publicly held attitudes toward people with a mental illness as dangerous and/or violent, personally responsible for their condition, and incapable of caring for themselves (Angermeyer & Matschinger, 2003; Corrigan et al., 2003). Many of these beliefs and attitudes stem from media portrayals of people with mental health conditions. A cinematic analysis found that media depictions of people with mental illness in mediums of print and film as homicidal maniacs, childlike savants to be marveled, and individuals weak in character, emphasizing personal responsibility for their illness (Gabbard G. & Gabbard K., 1992; Hyler, Gabbard & Schneider, 1991). Starting as early as adolescence, adolescents have been found to publicly stigmatize a peer with a mental health condition, characterizing them as aggressive and behaviorally difficult compared to peers not exhibiting mental health difficulties (O’Driscoll, Heary, Hennessy, & McKeague, 2012). These beliefs continue to be pervasive into the emerging adulthood period, among college students. Several studies, in a similar vein to O’Driscoll and colleagues’ (2012) research, have found that, for example, college students believe their peers with ADHD to be less academically competent than their neurotypical peers (Canu et al., 2008; Chew et al., 2009).

While stereotypes may exist they do not necessarily have to be believed by a person who holds them (Jussim et al., 1995). Stigma requires the public or privately held endorsement of the negative stereotypes surrounding people with mental health conditions, wherein endorsement generally occurs as a result of prejudicial attitudes. In agreeing with the negative stereotype
people will generate a negative emotional reaction (e.g. anger, fear, disgust). The combined stereotypes and prejudicial attitudes result in a behavioral response of discrimination. Discrimination against people with mental illness can come in many forms including coercion, withdrawal of support, social avoidance, segregation, and hostile and aggressive behaviors (Corrigan & Watson, 2002). Together each of these mechanisms works in tandem to discourage, shame, discriminate, and ultimately devalue people with a mental health condition (Corrigan, 2005).

Different models of stigma seek to capture the complex interplay between these three components using various analytical frameworks. According to an attributional model of mental illness stigma, proposed by Corrigan and colleagues (2003), causal associations between everyday events serve as a catalyst informing people’s beliefs about the cause and controllability of events (Weiner, 1995). Based upon these inferences people determine the responsibility of the person for their condition, which affects how likely they are to help a person with a mental health condition (Corrigan et al., 2003; Weiner, 1995). When people attribute a person as responsible for their condition, or dangerous, or both they are more likely to withhold help, actively avoid, the person, and recommend coercive treatment (Corrigan et al., 2003). Additionally, attributions for the cause of a person’s mental illness, such as character weakness, have been found to be associated with greater social distance, while external attributions, such as stress, have the opposite effect (Martins et al., 2000). Overall, an attributional model helps scholars better understand the important relationship between prejudicial attitudes and discriminatory behaviors, as discrimination serves to severely and negatively impact the well-being of people with mental health conditions.
Self-Stigma. Models of stigma distinguish between many different types, predominantly public and self. The focus of this thesis is on internalized stigma (e.g. self-stigma) as it presents problems directly related to self-esteem, identity development and security, as well as psychological well-being (Corrigan, Watson, & Barr, 2006; Perlick et al., 2001; Sirey et al., 2001). Self-stigma differs slightly from the definition proposed by Goffman, wherein it is the result of an individual with a mental health condition internalizing negatively held public beliefs and attitudes about mental health conditions leading to deleterious outcomes (see Corrigan & Rao, 2012 for review). Internalized stigma works in conjunction with the broader model described above wherein people endorse negative stereotypes about people like them, resulting in prejudicial attitudes (e.g. afraid of one’s self), leading to acts of self-discrimination such as isolation, alienation, etc. (Corrigan & Rao, 2012).

Corrigan and Rao (2012) suggest a hierarchical four stage model where people with a mental health condition are aware of public stereotypes, agree with said stereotypes, apply said stereotypes to themselves, resulting in some sort of self-inflicted harm. As a result of this process the harm of internalized stigma manifests itself in low levels of self-esteem, self-efficacy, and empowerment (Corrigan & Watson, 2002). Several studies have shown that self-stigma often results in a “Why Try?” effect (Corrigan, Larson, & Rusch, 2009). The “Why Try?” effect describes the internalizing effects self-stigma have on goal attainment and help-seeking behaviors (Corrigan, Larson, & Rusch, 2009). Specifically, people are less likely to follow their goals and dreams and become dissuaded to use evidence-based practices that could help achieve goal attainment (Corrigan, Larson, & Rusch, 2009). The effect is particularly mediated by levels of self-esteem and self-efficacy (Corrigan, Larson, & Rusch, 2009).
Four prominent studies have shown convincing evidence of the mediating effect of self-esteem and self-efficacy on related aspects of goal attainment (Markowitz, 2001; Owens, 2004; Rosenfield & Neese, 1993; Vogel, Wade, & Haake, 2006). Higher levels of self-esteem have been related to symptom reduction and overall better quality of life (Markowitz, 2001; Owens, 2004; Rosenfield & Neese, 1993; Vogel, Wade, & Haake, 2006). More so, specific qualities of life such as housing, work, and health have been associated with level of self-esteem and self-stigma (Owens, 2004). Reports of self-worth in people with mental health conditions have been found to have a positive association with academic and financial problems (Vogel, Wade, & Haake, 2006). Lastly and most importantly, rates of self-stigma and self-esteem in people with mental health conditions have been found to have a negative association with treatment-seeking behaviors (Rosenfield & Neese, 1993).

In addition, internalized stigma can exacerbate already occurring symptoms of mental health disorders and cause of the onset of depression if not already diagnosed (Corrigan, Watson, & Barr, 2006). Aspects of the “Why Try?” effect closely parallels Link and colleagues’ (1989, 2001) labeling theory and modified labeling theory, which propose that the fear of rejection as a result of devaluation and self-imposed isolation also contribute to lower levels of self-esteem for people labeled as having a mental health condition. In their labeling and modified labeling theory, the focus shifts from the publicly held stereotypes to the label of the mental illness itself (Link et al., 1989; Link & Phelan, 2001).

**Resilience**

Many models of mental health conditions focus only on the deficits of the people living with them. Chief among these is the historically long-standing medical model, examined earlier, championed by both the psychological and psychiatric communities. While it is important to
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investigate the often deficit-oriented outcomes associated with mental health conditions, theoretical frameworks and models should strive to see people beyond their mental health status. Recently, there has been a growing trend in the canon of psychological literature towards investigating resilience, hardiness, grit, and other strength/skill/values-based approaches to conceptualizing people and their mental health conditions. Resilience approaches, as opposed to the traditional medical-model, recognize the strengths, skills, personality traits, and processes related to overcoming adversity that empower, give agency, and provide hope to people with mental health conditions.

Resilience has been operationalized in a heterogeneous manner across research settings making it difficult to truly define (see Fletcher & Sarkar, 2013 for a thorough critique on the idea of psychological resilience). Often, resilience is conceptualized as a set of skills, competencies, or areas of mastery that allows people to deal with sometimes overwhelming circumstances in a positive manner (Fletcher & Sarkar, 2013). Some research points to resilience as ‘trait-like’, in which only certain people inherently possess the qualities/attributes associated with resilience (Connor & Davidson, 2003). Other researchers view resilience using an outcome-oriented approach influenced by both internal (e.g. genetic predispositions) and external factors (e.g. social support) of the person (Fletcher & Fletcher, 2005; Fletcher, Hanton, & Mellalieu, 2006; Fletcher & Scott, 2010). An additional third, and much newer, perspective views resilience not just as an outcome but also as a series of processes (Luthar & Cicchetti, 2000). This process-based approach adds a temporal element to the concept of resilience and introduces the ideas of multiple developmental trajectories following adversity/stress (Fletcher & Sarkar, 2013). Some scholars specify even further that resilience differs as a result of the type of stress (e.g. chronic or acute) a person experiences (Richardson, 2002).
Throughout this great heterogeneity though, most scholars agree that resilience hinges on some type of adversity being overcome in an adaptive and positive manner by an individual (Fletcher & Sarkar, 2013). Often times the forms of adversity people with mental health conditions face are that of stigma and symptomatology associated with their condition. The definition of resilience used in this thesis will borrow from multiple perspectives and models, for an integrated definition. Therefore, resilience will subsequently be conceptualized as both a collection of traits and processes, supported internally and externally depending on the context/system, that allows an individual to positively and adaptively cope despite the presence of adversity over time (Becker, Cicchetti, & Luthar, 2000; Fletcher & Sarkar, 2013; Southwick et al., 2014). As a result of this definition, resilience can be conceptualized as something that is attainable, modifiable and predicted by various sets of factors (Masten, 2001; Bonanno & Diminich, 2013).

**Resilience, Empowerment, and Stigma**

Corrigan and Watson (2002) offer a paradoxical model of self-stigma in which one outcome creates “righteous indignation at the injustice of stigma” that empowers people, galvanizing those with mental health disorders into action instead of negatively affecting them (Corrigan & Rao, 2012, p. 03). Empowerment acts a positive parallel pathway for individual responses to stigma, as opposed to the otherwise negative and debilitating effects of self-stigma. Traditionally coping models were used to explain how people with mental health conditions dealt with stigma. A coping model emphasizes the individual acceptance that stigma and its negative consequences are inevitable and the best way to live is to not fight but adjust. People who tend to adopt a coping model towards stigma are more likely to follow a pathway that leads towards negative psychological wellbeing (Shih, 2004). Whereas an empowerment model
increases resilience, as empowered people see overcoming stigma as an enriching process not a depleting one (Oyserman & Swim, 2001; Shih, 2004). Additionally, people who become empowered as a result of righteous indignation are more likely to have an active and agentic presence throughout the length of their treatment (Corrigan, Faber, Leary, & Rashid, 1999).

In cementing itself as the opposite end of the spectrum from the “Why Try?” effect, empowerment is positively associated with higher self-esteem, social support, and quality of life (Corrigan, Larson, & Rusch, 2013; Rogers et al., 1999). More so, empowerment has been inversely associated with reductions in self-esteem levels specifically as a result of self-stigma (Rusch et al., 2006). Rusch and colleagues’ (2006) work examined women with social phobia and borderline personality disorder to see if legitimacy of discrimination, perceived discrimination, and/or group identification affected whether an individual would have an empowered or disempowered outcome as a result of experiencing self-stigma. Specifically, low levels of perceived discrimination and legitimacy of discrimination predicted higher levels of self-esteem and empowerment, while group identity had no effect (Rusch et al., 2006). Within the idea of empowerment, specific mechanisms such as disclosure of a mental health disorder status and peer support have enhanced resistance and ameliorated the negative consequences of stigma (Bockting et al., 2013; Corrigan & Rao, 2012).

Two important mechanisms appear to influence whether people have an empowered or disempowered disposition as a result of experiencing self-stigma: legitimacy and group identity (Corrigan & Watson, 2002). People who believe the stereotypes about their group as more legitimate are more likely to suffer from the “Why-Try?” effect outcome than those who don’t take those stereotypes as seriously (Corrigan & Watson, 2002). Additionally, people can buffer the negative effects of self-stigma and become empowered to through positive interactions/bonds
with other ingroup members creating an overall more positive association with their identity
(Frable, Wortman, & Joseph, 1997; Porter & Washington, 1993). Exploring further the
precarious relationship between the two constructs, stigma and resilience have been found to
have a reciprocal relationship wherein resilience decreases stigma and stigma decreases
resilience (Crowe, Averett, & Glass, 2016).

Recovery

In order to provide history, context, and connection, to the more abstract qualities of
resilience, an introduction to the literature on the recovery movement within psychiatric
rehabilitation will be explored. The recovery movement in psychiatry has developed in parallel
to resilience, empowerment, and other strength-based approaches and has many points of
overlap. The United States government along with most of the ‘global north’ have at the turn of
the century positioned recovery, and various other aspects of it such as community reintegration
and social inclusion, as the primary outcome of what mental health services should be utilized
for (New Freedom Commission on Mental Health, 2003; New Freedom Commission on Mental
Health, 2005). Recovery is a unique approach in that it targets a specific demographic of the
public sector that has been long ignored by the psychiatric and psychological communities; by
psychologists and psychiatrists themselves as well as the systems they work in. From this
viewpoint recovery is being used to radically transform outdated, oppressive, and deficit-focused
models of care that had come to dominate the psychiatric world of rehabilitation.

In looking at recovery, it is first important to define just exactly what it is. There exist
many different models and conceptualizations in the literature that at once offer similar and
dissimilar themes. One analysis of the definition of recovery in empirical research came away
with two varying definitions. One definition relayed recovery as a desired outcome just as
probable as deterioration (Davidson & Roe, 2007). The second definition conceptualized recovery as stemming from the mental health consumer movement and refers to a “person’s rights to self-determination and inclusion in community life despite continuing to suffer from mental illness” (Davidson & Roe, 2007, p. 459). Various other models of recovery emphasize it as a multidimensional nonlinear process that operates across multiple levels, from the individual to the system (Lloyd, Waghorn, & Williams, 2008; Jacobson & Greenley, 2001). At the individual level recovery focuses on hope, empowerment, healing, connection, and citizenship (Jacobson & Greenley, 2001; Rowe et al., 2001). At the systems level a factor analysis revealed that recovery focuses on five primary dimensions: life goals of patients, individualized treatment services, patient choice, diversity of treatment options, and involvement of patients (O’Connell et al., 2005).

At the individual level, recovery seeks to define people’s relationship with their mental health condition rather than their personhood as a result of a mental health condition in hopes of empowering individuals and encouraging autonomy (Davison & Roe, 2007). At the systems level recovery drives a transformative approach to reinventing how mental health care is delivered in the United States. As a result of this definition, a central part of recovery emphasizes the use of individual strengths and other competencies along with external supports such as supportive environments and recovery-oriented systems of care, in coping with a mental health condition (Davidson & Roe, 2007; Farkas et al., 2005).

After analyzing how recovery can be conceptualized, it is important to note that recovery as a model has been employed in a variety of different ways at the individual and systems level. Lloyd, Waghorn, and William (2008) identify four different models commonly employed in recovery-oriented care: clinical, social, personal, and functional. A clinical model of recovery
emphasizes not only symptom remission as its goal but the overall improvement of psychosocial well-being in the areas of school/work, family, and peer relationships in the face of serious mental illness (Lloyd, Waghorn, & Williams, 2008). A social model of recovery emphasizes the underlying necessity and facilitation of social supports from peers and systems in promoting recovery-oriented outcomes. One study conducted by Corrigan and Phelan (2004) found that people with a mental health condition identified aspects of recovery such as hope and goal orientation/success more so if they reported a larger social network and positive interactions with said social network. A personal model of recovery emphasizes recovery from the perspective of the person with the mental health condition. From this perspective they identify recovery as “the establishment of fulfilling a meaningful life and a positive sense of identity founded on hopefulness and self-determination” (Andresen et al., 2003, p. 588). Lastly a functional model of recovery, not unlike a clinical model, emphasizes not only symptom reduction but a goal that works towards enhancing life and reinstating socially-valued domains of the real world (Lloyd, Waghorn, & Williams, 2008).

Implementing aspects of recovery-oriented care has been found to have profound impacts on the mental health of people with both acute and serious mental health conditions. Resnick and colleagues (2005) found a bidirectional relationship between their model of recovery (empowerment, hope and optimism, knowledge, and life satisfaction), emphasizing many of the same aspects described by the models above, and positive clinical outcomes of empirically-based treatments. Overall, recovery models of care offer another unique strength-based approach that compliments models of resilience by recognizing the agency and fostering the empowerment of people with mental health conditions.

Self-Affirmation
At the center of this thesis stands self-affirmation theory and subsequent self-affirmation interventions targeting psychological-wellbeing. Self-affirmation like other models and theoretical perspectives employs a strength-based approach for people with mental health conditions to view themselves through. Broadly, self-affirmation theory focuses on how people protect their sense of self/self-concept when confronted with threatening information (Steele, 1988). Underlying that is the assumption that people have a strong desire to protect their self-integrity, or wholeness (Steele, 1988). Self-integrity is proposed to be a person’s conceptualization of their self as a good and moral human being that adheres to the social norms circumscribed by society (Cohen & Sherman, 2006). In viewing the integrity of the self, Steele (1988) states that it is made up of three aspects: roles, values, and belief systems.

Roles include the responsibilities a person has acquired in the different identity areas of their life, whether it be scholar, friend, patient, partner etc. (Steele, 1988). An advantage of having more than one role is that people have a great degree of flexibility in defining their identity dependent on the situation. If threatened in one domain people have the flexibility to reposition themselves as strong/resilient in another (Cohen & Sherman, 2014). Values encompass the aspirations, hopes, and dreams that a person lives their life by, similarly beliefs are the wide-ranging ideologies, typically embedded in institutions, to which people pledge to (Steele, 1988). When threatened, people typically respond in a way that acts to preserve a global integrity of the self, meaning they react defensively in order to continue thinking of themselves as good and honest (Cohen & Sherman, 2006).

A core feature of self-affirmation is that engagement in promoting roles, values, and/or beliefs that are salient to a person's identity can restore and preserve self-integrity through threat reduction and personal affirmation (Cohen & Sherman, 2006). Studies have found that
preservation of self-integrity can occur through either writing or engaging in the personally relevant values (Cohen & Sherman, 2014; McQueen & Klein, 2006). The theory posits that through personal affirmation a person is allowed to introspectively reflect on themselves in a broader context than just the threatened domain (Cohen & Sherman, 2006). In addition to buffering the stressful psychological effects felt by a threat to one’s identity, self-affirmations also help to reduce defensiveness in participants (Cohen & Sherman, 2006). Defensive tactics usually manifest themselves through spin control, failure to accept blame/responsibility, ruminating thoughts, and using chemical substances to alter states of reality (Steele et al., 1981). Defensiveness itself has often been conceptualized as a “psychological immune system” protecting self-integrity but often through short-term solutions that in fact reduce the potential positive impact of character growth (Sherman & Cohen, 2006, p. 340; Gilbert et al., 1998). Self-affirmations have been seen to reduce the use of defensive tactics such as denial, bias, and distortion in individuals (Sherman et al., 2000).

Self-affirmation theory and practice lends valuable evidence to the importance and success of frameworks that work to affirm positive, empowering, and competent qualities, beliefs, and values antithetical to perspectives, like the medical model, that focus solely on deficits. One promising study found that self-affirmation reduced levels of self-stigma when compared to a control group and found an increased willingness of participants to participate in psychotherapy (Lanin et al., 2013). While there has been little exploration of the relationship between self-affirmation and stigma of mental illness the literature on its relationship with related stigmas of race and gender are extensive and will be discussed in the following interventions section.

**Interventions**
Without the aid of interventions, adolescents and emerging adults with mental health conditions, who face chronic stressors and/or multiple adversities such as their symptomatology and social stigma, have a decreased chance of positively and successfully navigating through the different stages of their development (Luccar & Chietti, 2001). Common intervention approaches that buffer the negative effects caused by identity threats, like stigma and stereotype threat, are to use the built-in environment and psychological processes, such as empowering individuals with self-affirmations to increase desired outcomes (Cohen, Purdie-Vaughns, & Garcia, 2012).

Popular interventions come in all shapes and sizes ranging from one-time to month long series, but the most successful ones consider the longitudinal impact of stress and identity threat. Research done by Cohen and colleagues’ (2006, 2012) suggests that targeting student subjectivity and the employment of implicit psychological processes are also helpful in creating longitudinal impacts. Each of these strategies works as a psychological lever, otherwise known as a point of access in a complex sometimes open-ended system that is not immediately apparent, wherein interventions can be made to have larger and longer lasting impacts on populations.

Current intervention trends involve resilience and self-affirmation related aspects including valuing students’ individuality (see Ambady et al., 2004; Gresky et al., 2005), promoting a growth mindset about intelligence (see Aronson et al., 2002; Blackwell et al., 2007), and value-affirmations to reduce stress and threat (see Cohen, Garcia, Apfel, & Master, 2006; Cohen et al., 2009; Martens, Johns, Greenberg, & Schimel, 2006). The following subsections will offer up specific examples of resilience, empowerment, and self-affirmation interventions. Overall, each type of intervention offers a promising way to drive positive cognitive and behavioral change more effectively than a traditional deficits-based approach to programming.
**Resilience.** Resilience intervention approaches for people with socially devalued identities and/or mental health conditions offer a way to use social supports and personal assets as vehicles for transformative change (Zolkoski & Bullock, 2012). Commonalities among resilience-based interventions include a focus on skill mastery, emotional regulation, and competency development in order to increase positive mental health and resilience related processes (Chmitorz et al., 2018). Resilience interventions typically occur across a moderate to long period of time and include several sessions, as fostering or supporting such a complex construct like resilience takes time.

At the individual level interventions have been suggested to utilize coping skills and social resource development (Olsson et al., 2003). One such intervention, the Resourceful Adolescent Program (RAP; Shochet, Holland, & Whitfield, 1997) is an 11-session intervention for at-risk adolescents that focuses on building skills, supporting current strengths, fostering social networks, and building positive interpersonal relationships with others. When RAP was employed in a school-based setting the resilience intervention was found to reduce feelings of hopelessness and depressive symptoms in a diverse population of adolescents when compared to both a control and comparison group (Shochet et al., 2001). Shochet and colleagues (2001) found that the effects of the intervention on depressive symptoms and hopelessness remained stable after a period of 10-months, suggesting a strong longitudinal effect.

At a broader ecological level, interventions have been suggested to target social support systems such as fellow peers, academic advisors/teachers, and opportunities for success as they have been positively associated with psychological well-being (Olsson et al., 2003). One such intervention is Responsive Advocacy for Life and Learning in Youth (RALLY) for adolescents struggling with emotional, behavioral, and/or mental health difficulties in the public-school
system in the U.S. (Noam & Hermann, 2002). RALLY operates under a developmental psychopathological perspective emphasizing risk-resilience trajectories to provide prevention and intervention in non-traditional non-stigmatizing ways (Noam & Hermann, 2002). RALLY works across social-systems (e.g. peers, teachers, family, community and healthcare institutions) to improve academic success and emotional well-being by implementing mentorship and expansive social support networking programs and integrating “the diverse and often fractured worlds of family, community, and after school” programs to replicate successful interventions services (Noam & Hermann, 2002).

While RALLY is targeted towards at-risk youth in high schools in middle schools a similar resilience intervention for veterans with PTSD promotes positive emotional engagement and social support. The intervention found that veterans assigned to the intervention had a more positive mental health state and reduced affective symptomatology when compared to a control group (Kent et al., 2011). Although not focusing on people with mental health conditions themselves, one study done on children of parents with a mental illness found that a resilience-based intervention had modest results in increased mental health literacy, life satisfaction and decreased depressive symptoms (Fraser & Pakenham, 2009). Although there has been a depth of research conducted into the theory, conceptualization and model application of resilience, this literature review discovered very little evidence of resilience theory applied to intervention, especially for people with mental health conditions.

**Empowerment.** The main goal of interventions utilizing an empowerment perspective is not to necessarily eradicate the presence of self- or public-stigma but rather create pathways for an empowered and agentic individual thereby advancing pursuit of life goals (Corrigan, Larson, & Rusch, 2013). Empowerment perspectives “prescribe what might be done...rather than what
should be done” (Corrigan, Larson, & Rusch, 2009, p.78). Several studies of empowerment interventions have found success in reducing the debilitating effects of stigma, stress, and other adversities commonly faced by people with mental health conditions. A pilot study on the efficacy of the Ending Self-Stigma (ESS; Lucksted et al., 2011) intervention found that people with mental health conditions had an improved perception of social supports and recovery orientation as well as decreased self-stigma. ESS is a 9-session group intervention that utilizes shared personal experience storytelling, skill-fostering, educational lectures, and problem-solving strategies using a cognitive-behavioral framework (Lucksted et al., 2011).

Empowerment can come in many different forms under many different guises. Many empowerment programs as of recently come in the forms of supportive education and/or employment as well as the implementation of peer support specialists in community health care settings (Bellamy & Mowbray, 1998; Solomon, 2004). For many emerging adults, onset of a mental health condition limits access to educational and vocational opportunities, therefore creating interventions that support these domains lends empowerment and skill-building competencies. One such study found that supporting post-secondary education in emerging adults with a mental health condition increased levels of empowerment, hope, and competency because education empowered them to seek out new knowledge (Bellamy & Mowbray, 1998).

Peer support specialists are people who have been in and/or are currently in treatment for a mental health condition who serve as part of the clinical advising team for people also seeking treatment in community mental health centers (Yale Program for Recovery and Community Health, 2018). Engaging with peer support specialists helps people in treatment become more active participants in their recovery process and leads to a more positive mental health state (Yale Program for Recovery and Community Health, 2018; Solomon, 2004). One empowerment
model addressing the complex outcomes of traumatic stress in women, Traumatic Recovery Empowerment Model (TREM; Fallot & Harris, 2002), found that trauma recovery skills were positively associated with participation in the TREM intervention while substance abuse and anxiety were negatively associated (Fallot et al., 2011). Empowerment interventions offer an invaluable path towards autonomy for people living with a mental health condition through skill-building and the restoration of their agency.

**Self-Affirmation.** As pointed to previously in this literature review emerging adulthood represents a time of intense identity exploration, putting individuals at higher risk to socially-based identity threats such as stigma and stereotype threat. Self-affirmation interventions offer an empowering and values-oriented approach to improving disparities in psychological outcomes such as self-esteem (Cohen & Sherman, 2014; McQueen & Klein, 2006). Individuals use the components of self-affirmation as described previously in order to construct self-empowering and strengths-based self-narratives in order to buffer the effects of social identity threats such as stigma and stereotype threat (Steele, 2010; Wilson, 2011). Self-affirmation interventions work through personal reflection, written or otherwise, that reaffirms a value that the person believes they are already strong or competent in, in order to re-establish a global sense of self-integrity (Steele, 1988). Effectively, self-affirmation interventions focus on qualities that help broaden the person's view of themselves outside of the domain being threatened and in doing so those positive self-qualities become more salient than the current situational threat (Cohen & Sherman, 2006). The threat does not appear to go away entirely but rather the negative effects caused by the threat are reversed by the self-affirmation (Cohen & Sherman, 2006).

The use of self-affirmation interventions interested in decreasing stigma and/or promoting resilience for populations with mental health conditions is scarce, therefore much of
the following literature examines the effect of self-affirmation interventions conducted with minority populations for academic and other performance-related outcomes. While there is overlap between populations of color and populations with mental health conditions, as identities are intersectional and mental illness does not discriminate, there exists considerable differences between the two populations due to past and present historical oppression and systemic inequality and injustices. Yet, much of the self-affirmation intervention research done with populations of color has moderate applicability to the clinical population at the center of this thesis. There is valuable information learned that can be applied to a different type of vulnerable population with an historically devalued social identity as well as outcome variables that focus on mental health related constructs such as self-esteem rather than academic success and performance.

Keeping in mind the recursive cycles mentioned at the beginning of this section Cohen and colleagues (2006, 2012) conducted a series of field studies on the academic success of minority adolescents. At the beginning of the school year Cohen and colleagues (2006, 2009, 2012) gave African-American students a series of structured writing tasks that were randomized into self-affirmation or control groups. By the end of the year Cohen and colleagues (2006) found that African-American students assigned to the self-affirmation condition had higher grades for the first semester of the year when compared to the control (Cohen et al., 2006). The effects of the self-affirmation after controlling for other possibly interfering variables persisted over the course of the next two years, showing a rather profound temporal impact (Cohen et al., 2009). The results were later duplicated with a Latino sample of adolescents and found similar results in regards to academic success (Cohen et al., 2012). As social identity threats in the real world are not acute but chronic in their stress-related nature, it is important to focus on key
intervening points for maximization of self-affirmation intervention effects (Cohen & Garcia 2008; Garcia & Cohen 2012; Yeager & Walton 2011). For women in the STEM fields, an area typically dominated by cisgender male individuals, a multi-session self-affirmation intervention found that women performed better on physics exams at the undergraduate collegiate level than peers assigned to a control condition (Miyake et al., 2010). Together each of these studies suggests that self-affirmation interventions serve as a successful pathway towards realizing a student’s full potential (Walton & Spencer, 2009).

Education is not the only place self-affirmation interventions have found success in. Health related outcomes, both in the physical and mental sense, have been found to have improved as a result of this type of intervention. Aggression in school classrooms has been found to be reduced as a result of self-affirmation interventions (Thomaes et al., 2009). Specific studies have found that in students with high levels of self-grandiosity, an important risk factor in aggressive tendencies in youth, introduction of a self-affirmation intervention after a drop in self-esteem (e.g. the threat) reduced physical aggression such as bullying hitting and lashing out at classmates (Thomaes et al., 2009) Additionally, self-affirmations have been able to increase prosocial behaviors in youth who have a history of displaying antisocial behaviors, as reported by their teachers (Thomaes et al., 2012).

Purpose

Building on aspects of strengths-based intervention strategies, cutting-edge research on stigma and resilience, and the newly proposed emerging adulthood stage of life, this thesis seeks to provide a brief, effective, and easy to use self-affirmation intervention to foster resilience-related processes and decrease self-stigma in order to support emerging adults’ psychological well-being. This self-affirmation intervention addressed the reality of stigma people with mental
health conditions face in an everyday context. Second, the goal of this study was to better understand the applicability and effectiveness of interventions grounded in social psychological theory for clinical populations. By extension, this thesis aimed to elucidate the different ways in which empowering people with mental health conditions, through affirmation of their core values, can support psychological well-being and other related mental health wellness outcomes. This research was novel in several ways. This was one of the first studies testing the effects of a self-affirmation intervention on mental health wellness outcomes instead of academic or cognitive performance outcomes. This research also expanded the stereotype and social identity threat literature to include a previously overlooked population in social psychological literature, people with mental health conditions. As noted in the above literature, much like people from other marginalized backgrounds (e.g. race, ethnicity, religion, sexual orientation, etc.) people with mental health conditions represent a socially devalued and disadvantaged population. By supporting the psychological wellbeing of college students with mental health conditions through these specific avenues it is hoped that the end result will result in improved mental health outcomes.

**Hypotheses**

The hypotheses of this research are that under the induction of a social identity threat for people identifying as having a mental health condition, participants assigned to a self-affirmation intervention will have 1) increased resilience, 2) increased positive group identification, 3) increased self-esteem, 4) increased feelings of empowerment and hope, and 5) decreased internalized stigma when compared to a control group.
Methods

The present study was a randomized controlled trial with both a between-subjects and within-subjects component. Participants were primed with a social identity threat related to a mental health condition identity, randomly assigned to either a self-affirmation intervention or a control intervention, and then assessed on measures of resilience, empowerment, group identification, self-esteem, hope, and internalized stigma.

Participants

Participants were recruited from the Connecticut College undergraduate student population. A total of 26 participants completed this study \((N = 26)\). Between time points one (T1) and two (T2) there was a 100% retention rate and between T1 and time point three (T3) there was a 92.31% retention rate. Participants in this sample were majority White (88.5%, \(n = 23\)) and majority Female (88.5%, \(n = 23\)); 7.7% of participants identified as Hispanic/Latinx (n=2), 7.7% reported identifying as more than one race (n=2) and 3.8% reported identifying as African-American (n=1); 11.5% of participants were first year students (n = 3), 30.8% were sophomores (n = 8), 15.4% were Juniors (n = 4), 42.3% were seniors (n = 11). Overall, participants reported the first onset of their psychiatric symptoms almost evenly across developmental stages; 30.8% occurred in their childhood (n = 8), 34.6% occurred during adolescence (n = 9) and 26.9% occurred most recently during college (n = 7). In terms of treatment, 34.6% of participants had seen only a counselor (n = 9) and 30.8% had seen both a counselor and had used medication at one point in their treatment (n = 8; see Table 1 for more information).

Participants were recruited via flyers put up in strategic locations across campus relating to mental health, such as the Student Health Center, in order to increase the likelihood of
enrollment of participants with past or present mental health conditions. In addition, the present study was advertised via email blasts to students and through verbal recruitment strategies (see Appendix A for recruitment materials and instructions). For their participation, participants were compensated up to $15, in the form of gift cards, which were delivered electronically at the completion of the study. Participants earned $10 of credit after the individual lab portion of the study, and $5 after the completion of the final set of questionnaires. The compensation amount is reasonable and comparable to other recent studies of the same length and design (Zakriski, personal communication). All procedures were IRB approved.
Table 1. *Sample Demographics*

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*Note.* N = 26
Materials

**Resilience.** The construct of resilience was measured by the Resilience Scale for Adults (RSA; Friborg et al., 2003). A methodological review of resilience measurement scales suggests that the RSA among two others “received the best psychometric ratings” (Windle, Bennett, and Noyes, 2011, p. 1) making it both a suitable and accurate assessment for measuring the concept of resilience. The RSA measures the presence of protective factors important to promoting adult resilience across five subscales: personal competence, social competence, family coherence, social support, and personal structure. The RSA uses a “five-point semantic differential scale format in which each item [has] a positive and a negative attribute at each end of the scale continuum” (Friborg et al., 2003, p. 32). Items include ‘When something unforeseen happens...I always find a solution or I often feel bewildered’ and ‘To be flexible in social settings...is not important to me or is really important to me’. Select items were reverse coded so that higher scores indicated higher levels of resilience. The RSA has moderate to high internal consistency and test-retest reliability ($\alpha$ ranges from 0.67 to 0.90; Friborg et al., 2003, see Appendix B).

**Internalized Stigma.** Internalized stigma was measured by the Internalized Stigma of Mental Illness Inventory-10 (ISMI-10; Boyd, Otilingam, & DeForge, 2014). The ISMI-10 assesses internalized stigma across five subscales: alienation, discrimination experience, social withdrawal, stereotype endorsement, and stigma Resistance. The ISMI-10 uses the two strongest loading items for each subscale from the original 29-item ISMI (Ritsher (Boyd), Otilingam, & Grajales, 2003). The wording of items containing the phrase ‘mental illness’ have been adapted to say ‘emotional, behavioral, or mental health difficulties. This is to ensure that people who do not necessarily identify with the term ‘mental illness’ still feel that the items are relevant to them.
Adapted items include ‘People with emotional, behavioral or mental health difficulties tend to be violent’ and ‘I can’t contribute anything to society because I have an emotional, behavioral or mental health difficulty.’. Items are coded on a 4-point anchored Likert scale ranging from 1 (strongly agree), 2 (agree), 3 (disagree), and 4 (strongly disagree). Select items were reverse coded so that higher scores reflected higher levels of self-stigma. The total score was calculated by adding the score from each item together and then dividing by the number of items answered. Scores will range from 1-4 with higher scores indicating more severe levels of internalized stigma. The ISMI-10 has a high internal reliability ($\alpha = 0.90$; Boyd, Ottingam, & DeForge, 2014; see Appendix C)

**Group Identification.** Participants group identification was assessed using Watson, Corrigan, Larson, and Sells (2007) adaptation for populations with mental health conditions of a group identification measure developed by Jetten et al (1996). The measure assesses the extent to which participants identify with the mental health condition(s) group. Participants will respond to five items on a nine-point scale ranging from 1 (not at all) to 5 (a great deal). To keep terminological consistency with other adapted measures the phrase “people with emotional, behavioral or mental health conditions” will be used instead of “mental illness”. Adapted items include “How much they identify with the group called people with emotional, behavioral or mental health conditions”, “Feel strong ties with the group called people with emotional, behavioral or mental health conditions”, “See themselves as part of the group called people with emotional, behavioral or mental health conditions”, “How often they think about themselves as part of people with emotional, behavioral or mental health conditions”, and “How close they feel to other members of people with emotional, behavioral or mental health conditions” (Watson et
al., 2007). Jetten and colleagues (1996) adapted measure has a high internal reliability ($\alpha = 0.86$; see Appendix D).

**Self-Esteem.** Self-esteem was measured by the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). The RSES is a 10-item measure of global self-esteem with both 5 positively and negatively worded items such as ‘I feel that I have a number of good qualities’ and ‘I certainly feel useless at times’. Items use a 4-point scale ranging from 1 (strongly disagree), 2 (disagree), 3 (agree), 4 (strongly agree) Negatively worded items are reverse coded such that overall higher scores indicate more positive self-esteem. The RSES has demonstrated both high internal consistency and test-retest reliability ($\alpha = 0.88$, $\alpha = 0.82$; Rosenberg, 1965; see Appendix E).

**Empowerment.** Empowerment was measured by the Youth Empowerment Scale-Mental Health (YES-MH; Walker, Thorne, Power, and Gaonkar, 2010). The YES-MH was originally tested on ages 14-21 making it suitable for use with a population of college undergraduate students. The YES-MH is a 20-item measures that assesses youth empowerment in the context of mental health across three different levels: the self, service, and systems. Items include ‘I feel I can take steps toward the future I want’ and ‘I feel that I can use my knowledge and experience to help other young people with emotional, behavioral or mental health difficulties’. Items are scored on a scale from 1-4 ranging from ‘definitely false’ (1) to ‘definitely true’ (4). Scores from each subscale will be averaged to create a total subscale score. Higher scores indicate higher levels of empowerment at each level and overall. The YES-MH has high internal reliability for each subscale (Self $\alpha = .85$, Service $\alpha = .83$, and System $\alpha = .88$; Walker et al., 2010; see Appendix F).
Hope. The construct of hope was measured by the 12-item Adult Dispositional Hope Scale (ADHS; Snyder et al., 1991). The ADHS is a self-report measure assessing hope which is defined by Snyder and colleagues (1991) as a “cognitive set that is composed of a reciprocally derived sense of successful (a) agency (goal-directed determination) and (b) pathways (planning of ways to meet goals)” (p. 570). This measurement of hope matches most closely with this researchers’ aim to measure constructs that promote resilience related processes/characteristics and other related outcomes. The 12-items are split into three different dimensions: agency, pathways, and filler. Only items from the pathways and agency subscales were used for analysis. Additionally, only the previously mentioned two subscales were used to calculate the average total score. Items include ‘I can think of many ways to get out of a jam’ (pathways), ‘I meet the goals that I set for myself’ (agency), and ‘I am easily downed in an argument’ (filler). Items are scored on a 4-point rating scale from 1 (Definitely False), 2 (Probably False), 3 (Probably True), to 4 (Definitely True) with higher scores indicating more hope. The ADHS has moderate to high internal consistency and high test-retest reliability (subscales $\alpha$ ranging from .074 to 0.84, overall $\alpha = 0.85$; Snyder et al., 1991; see Appendix G).

Mental Health History. Mental health history was assessed by a series of questions adapted from Quinn, Kangh, and Crocker (2004). This thesis borrowed their methodology because Quinn and colleagues (2004) study has shown that the simple act of disclosing/revealing a mental health history to others produces negative effects based on the threat to one’s identity, as in the stereotype threat literature. The wording of items containing the phrase ‘psychological problems’, ‘mental health problems’, and ‘mental health conditions’ have been adapted to say ‘emotional, behavioral or mental health difficulties’ in order to remain consistent with other adapted items. Adapted items include ‘Have you ever experienced any emotional, behavioral, or
mental health difficulties problems that significantly affected your life (e.g., feeling very
depressed)?’, ‘Have you ever been treated for an emotional, behavioral, or mental health
difficulty?’, ‘If you have been treated for an emotional, behavioral or mental health difficulty,
what treatment was it (is it)?’.

This study added an additional item concerning the age of onset (e.g. “To the best of your recollection, when was the first time you experienced significant emotional, behavioral, or mental health difficulties?”; see Appendix H).

**Symptom Distress.** Symptom distress was measured by the 15-item Symptom Distress Scale (SDS) which has been adapted from the Symptom Checklist-90 and the Brief symptom Inventory. The SDS has been used previously in ongoing research being conducted by faculty at the Yale Program for Recovery and Community Health. Items are scored on a 5-point scale ranging from 1 (Not at all) to 5 (Extremely) with higher scores indicating higher levels of distress (see Appendix I).

**Perceived Social Support.** Perceived social support was measured by an adapted version of the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet & Farley, 1988). This study only used the family and friends subscales, dropping the significant other subscale, as they more closely match the aim to observe how broader community levels of support moderate the relationship between the intervention and related outcomes. Items include ‘I can talk about my problems with my family’ and ‘I can count on my friends when things go wrong’. Items are scored on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) with higher scores indicating higher levels of perceived social support. The MSPSS has high internal consistency and test-retest reliability ($\alpha = .88, \alpha = 0.85$; Wilcox, 2010; see Appendix J).

**Procedure**
The present study consisted of three main parts: 1) administration of an online pre-test questionnaire, 2) an individual lab session with an immediate post-test assessment identical to the pre-test, and 3) a seven-day delayed post-test assessment also administered online. Only participants with a past or present mental health condition were recruited via the methods described above. Participants were asked to contact the researcher to participate. All questionnaires, assessments, and individual writing tasks were completed through the online survey platform Qualtrics. All participants completed the study in the clinical classroom space located in the 4th Floor Bill Psychology lounge their personal computers/laptops. If an individual participant did not have one, a computer/laptop was provided.

**Pre-Test Questionnaire.** After reaching out to the principal investigator participants were emailed and asked to fill out the informed consent document and pre-test questionnaire, as well as setting up a time for the following individual lab session. Prior to completing the pre-test questionnaire participants were asked to create a unique identification number (e.g. the first three letters of their mother/mother figure’s first name and the last 4 digits of their cell phone number) which was used across all parts of the study. Participants then filled out a pre-test questionnaire including adapted MSPSS, RSA, ADHS, ISMI-10, RSES, SDS, group identification, and the YES-MH measures. All measures within the questionnaire were randomized in order to reduce order-biasing effects. Participants completed the pre-test questionnaire 24-hours prior to their individual lab session in order to reduce threats to the external validity of the study (i.e., interaction of pre-test and treatment).

**Individual Lab Session.** Participants then completed the individual lab session which consisted of four parts: 1) social identity threat induction, 2) intervention manipulation, 3) manipulation reinforcement, and 4) immediate post-test assessment. Participants were asked to
close all other browsers and applications prior to starting their individual lab sessions. This study adapted previously validated methodology from Quinn, Kahng, and Crocker (2004) wherein participants answered a series of four questions concerning their mental health history and age of onset. Additionally, in line with Quinn and colleagues (2004) methodology, all participants were told that the related outcome assessments were diagnostic of their abilities to cope with mental health difficulties in order to reinforce the social identity threat. Following the social identity threat, participants were randomly assigned to either the self-affirmation or control intervention.

The present study adapted previously validated methodology from Cohen and colleagues (2006) for the intervention/manipulation protocol. Protocol was conducted as followed.

“The written instructions used to guide students through the exercises had previously been thoroughly tested to ensure that they were intelligible, age-appropriate, and self-explanatory...In both conditions, subjects were presented with a short three-page packet. The written instructions informed all subjects that they would be providing written responses to questions about “your ideas, your beliefs, and your life.” The instructions further emphasized that while answering the various questions in the exercise, they should bear in mind that, “there are no right or wrong answers.”

The same set of values were listed on the cover page of the packet in both conditions: athletic ability, being good at art, being smart or getting good grades, creativity, [managing stress], independence, living in the moment, membership in a social group (such as your community, racial group, or school club), music, politics, relationships with friends or family, religious values, and sense of humor, [engaging in self-care].

Subjects in each condition were asked to read the list of values and to think about each one...[Subjects] in the treatment condition...circle their two or three most important values and...subjects in the control condition...circle their two or three least important values...The next page of the packet directed subjects in the affirmation condition to “look at the value[s] you picked as most important to you,” and to think about times when...“these values”...were “important to you.” They were then instructed to describe “in a few sentences” why the selected value/s were important to them. To reduce any evaluation apprehension that might otherwise be evoked, the following statement was included: “Focus on your thoughts and feelings, and don’t worry about spelling, grammar, or how well written it is.” The instructions were virtually identical for subjects in the control condition, with the exception that the wording was altered to instruct students to think about times when their least important value/s might be important to someone else, and to describe why the value/s might be important to someone else (Cohen, Aronson, & Steele, 2000; Fein & Spencer, 1997).

The manipulation was reinforced on the final page of the packet. This was accomplished by asking students in the affirmation condition to list the top two reasons why the value/s they had selected were important to them and by asking students in the control condition to list the top two reasons
why someone else would view the chosen value/s as important. Finally, to further increase the potential impact of the manipulation, subjects were asked to indicate their level of agreement with four easy-to-agree-with statements concerning the selected value/s.” (Cohen et al., 2006, p. 2-3)

The values “managing stress” and “engaging in self-care” were added to the list of values in the protocol in order to include more values explicitly centered around mental health and psychological wellbeing. This adaptation was made due to the fact that Cohen and colleagues (2006) original study looked at academic performance and not resilience processes/other psychologically related constructs. After finishing either the self-affirmation or control intervention all participants then completed a post-test questionnaire including the RSA, ADHS, ISMI-10, RSES, group identification, and YES-MH. All measures within the questionnaire were randomized in order to reduce order-biasing effects.

**Delayed Post-Test Assessment.** Following a seven-day delay, post-individual lab session, participants completed the combined aforementioned measures in an online post-test questionnaire. Participants who received the control condition had the opportunity to partake in the affirmation intervention upon completion of the delayed post-test questionnaire. The following language was used to inform participants in the control condition, during debriefing, of the opportunity take part in the affirmation condition,

Two experimental groups were used in this study, a self-affirmation intervention and a neutral control condition, to test if there was a significant difference between groups in terms of psychological resilience and other related psychosocial outcomes. In the spirit of equal opportunity the following exercise is merely being offered as an opportunity to experience the self-affirmation condition.

Attached to the delayed post-test questionnaire was the self-affirmation instruction packet for participants to voluntarily fill out and complete. Additionally, embedded at the end of the post-test questionnaire was a link for participants to anonymously enter their email in order to receive the latter part of the compensation for participation in the study (e.g. remaining $5 in form of gift card). Each participant received the study’s debriefing statement by the end of the seventh day
delay period following their individual lab session regardless of whether they completed the delayed post-test assessment.

**Inclusion Criteria**

Participants were included in data analyses if they qualified as having a past or present mental health condition. The inclusion criteria were: answers of yes to the first two items from the mental health history section of the pre-test questionnaire; some indication of treatment history via the third item.

**Statistical Analysis**

Following suggestions for statistical analyses for pre and post-test experimental designs this study conducted a repeated measures MANCOVA with treatment condition as the between-subjects factor and pre-/post-test scores as the within subjects factor (Dimitrov & Rumrill, 2003). Bivariate correlational analyses were used to describe the intercorrelations between key T1 variables. Independent sample t-tests were used to examine gender differences. Backwards stepwise regression analyses examined whether T1 self-stigma significantly predicted resilience, self-esteem, empowerment, hope, and group identity at T2 in the presence of their baseline levels. All statistical analyses were run using IBM Statistical Package for the Social Sciences (SPSS) version 24.

**Results**

**Preliminary Analyses**

Overall, participants reported moderate to high levels of the positive psychological constructs examined in this study at T1 (e.g. resilience, social support) while displaying low levels of negative constructs (i.e. self-stigma and symptom distress; see Table 2). Bivariate correlational analyses of mean scores at T1 between key outcome variables were conducted.
Several significant correlational relationships between key outcome variables were observed and these correlations showed moderate to strong associations. One interesting finding saw that while participants’ average self-stigma score, according to the method used by (Ritsher [Boyd] & Phelan, 2004), did not indicate high levels of self-stigma in the sample there was a significant positive relationship between self-stigma and group identity ($r(26) = 0.498, p < .01$). Therefore, as people had higher levels of self-stigma they were more likely to identify as being part of a group defined by a mental illness identity. Combined with low baseline levels of self-stigma as described above the significant relationship between self-stigma and group identity may indicate some level of implicit self-stigma or self-correcting bias in answer choice selection.

Additionally, group identity was found to be significantly negatively correlated with hope, empowerment, resilience, self-esteem, and social support. Therefore, as participants were more likely to identify with the group of people under the umbrella of mental illness they were less likely to have high levels of resilience, hope, empowerment, and self-esteem. There were also significant negative relationships between self-stigma and the key outcome variables of empowerment, resilience, self-esteem, hope, and social support. Altogether the correlations between key outcome variables at T1 suggests that the proposed psychological constructs and mechanisms investigated in this study are significantly linked with one another (see Table 3 for more information).
Table 2. *Outcome Variable Means at T1*

<table>
<thead>
<tr>
<th>Outcome Variable</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Stigma</td>
<td>1.70</td>
<td>0.40</td>
</tr>
<tr>
<td>Empowerment (self-subscale)</td>
<td>2.95</td>
<td>0.36</td>
</tr>
<tr>
<td>Group Identity</td>
<td>2.72</td>
<td>0.98</td>
</tr>
<tr>
<td>Symptom Distress</td>
<td>1.97</td>
<td>0.78</td>
</tr>
<tr>
<td>Social Support</td>
<td>5.85</td>
<td>0.93</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>3.06</td>
<td>0.51</td>
</tr>
<tr>
<td>Hope</td>
<td>3.23</td>
<td>0.44</td>
</tr>
<tr>
<td>Resilience</td>
<td>3.77</td>
<td>0.53</td>
</tr>
</tbody>
</table>
Table 3. Correlations Between Outcome Variables at T1

<table>
<thead>
<tr>
<th></th>
<th>Group Identity</th>
<th>Self-Stigma</th>
<th>Social Support</th>
<th>Resilience</th>
<th>Self-Esteem</th>
<th>Symptom Distress</th>
<th>Empowerment (self-subscale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hope</td>
<td>1</td>
<td>-0.366</td>
<td>-0.403*</td>
<td>0.481*</td>
<td>0.728**</td>
<td>0.723**</td>
<td>-0.602**</td>
</tr>
<tr>
<td>Group Identity</td>
<td>1</td>
<td>0.498**</td>
<td>-0.529**</td>
<td>0.451*</td>
<td>-0.625**</td>
<td>0.722**</td>
<td>-0.259</td>
</tr>
<tr>
<td>Self-Stigma</td>
<td>1</td>
<td>-0.635**</td>
<td>-0.484*</td>
<td>-0.444*</td>
<td>0.550**</td>
<td></td>
<td>-0.209</td>
</tr>
<tr>
<td>Social Support</td>
<td>1</td>
<td>0.763**</td>
<td>0.570**</td>
<td>-0.772**</td>
<td>0.308</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>1</td>
<td>0.729**</td>
<td>-0.738**</td>
<td>0.575**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>1</td>
<td></td>
<td>-0.704**</td>
<td>0.573**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symptom Distress</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.400*</td>
</tr>
<tr>
<td>Empowerment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *p<.05, **p<.01
Further tests investigating gender differences at T1 found that there were no statistically significant differences in levels of self-stigma, group identity, or self-esteem (see Table 4). Males did however report significantly higher scores on the resilience perceptions of self-subscale ($M = 4.39, SD = 0.42, t(24) = 3.32, p < .05$), the empowerment of the self-subscale ($M = 3.83, SD = 0.29, t(24) = 2.65 p < .05$), and the hope-agency subscale ($M = 3.83, SD = 0.14, t(24) = 2.15, p < .05$) when compared to females ($M_{RSA} = 3.25, SD_{RSA} = .57; M_{YES-MH} = 3.13, SD_{YES-MH} = .44; M_{ADHS} = 3.32, SD_{ADHS} = .41$). Thus, male participants reported higher resilience in three domains than female participants did at baseline.

**Analyses of Intervention Effects Over Time**

**Overview.** Two sets of 2 (Condition; self-affirmation and control) x 2 (Time; pre-test, immediate-post or follow-up) repeated measures multivariate analysis of covariance (RM MANCOVA) were conducted on measures of resilience, hope, empowerment, self-stigma, self-esteem, and group identity to investigate differences between participants assigned to the self-affirmation intervention compared to the control condition across time. Gender was included as a covariate in the analyses because the independent t-tests revealed that males had significantly higher scores on specific subscales within the resilience, empowerment, and hope measurements. Overall, it was hypothesized that participants assigned to the self-affirmation intervention would have higher scores of resilience, hope, group identity, empowerment, and self-esteem while having a lower score on self-stigma over time. These hypotheses were primarily tested by examining Time by Condition interactions.
Table 4. *Gender Differences in Outcome Variables at T1.*

<table>
<thead>
<tr>
<th>Scale Range</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Hope - Pathways</td>
<td>3.42</td>
<td>0.52</td>
</tr>
<tr>
<td>Hope – Total</td>
<td>3.63</td>
<td>0.33</td>
</tr>
<tr>
<td>Group Identity</td>
<td>2.40</td>
<td>0.80</td>
</tr>
<tr>
<td>Self-Stigma</td>
<td>1.60</td>
<td>0.36</td>
</tr>
<tr>
<td>Resilience - Future</td>
<td>4.33</td>
<td>0.52</td>
</tr>
<tr>
<td>Resilience - Style</td>
<td>3.75</td>
<td>0.43</td>
</tr>
<tr>
<td>Resilience - Family Cohesion</td>
<td>4.33</td>
<td>0.00</td>
</tr>
<tr>
<td>Resilience - Social Resources</td>
<td>4.62</td>
<td>0.36</td>
</tr>
<tr>
<td>Resilience - Total</td>
<td>4.24</td>
<td>0.41</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>3.30</td>
<td>0.44</td>
</tr>
<tr>
<td>Empowerment - Services</td>
<td>3.14</td>
<td>0.74</td>
</tr>
<tr>
<td>Empowerment - Total</td>
<td>2.97</td>
<td>0.34</td>
</tr>
</tbody>
</table>
**Short Term Intervention Effects: T1-T2.** The RM MANCOVA between T1 and T2 yielded a marginally significant multivariate Time by Condition interaction (Wilks’ lambda = 0.578, $F(2, 18) = 2.191, p = 0.092$) for the multiple scales of resilience. Univariate results revealed that there were significant findings for the family cohesion ($F(1, 23) = 6.727, p = 0.016$) subscale of the resilience measurement and a marginally significant finding for the social competence subscale of the resilience measure ($F(1, 23) = 3.867, p = 0.061$). For the family cohesion subscale, scores for participants who were assigned to the control condition increased from T1 ($M = 3.786, SD = .394$) to T2 ($M = 4.147, SD = .380$) while scores for participants who were assigned to the self-affirmation intervention remained flat from T1 ($M = 3.509, SD = .303$) to T2 ($M = 3.408, SD = .293$). For the social competence subscale scores for participants who were assigned to the control condition increased from T1 ($M = 3.370, SD = .328$) to T2 ($M = 3.636, SD = .356$) while scores for participants who were assigned to the self-affirmation intervention remained flat from T1 ($M = 3.790, SD = .252$) to T2 ($M = 3.780, SD = .274$). Therefore, the hypothesis that the self-affirmation intervention would increase resilience over time when compared to a control condition was not supported, and in fact the opposite pattern was observed. That is, participants who were asked to reflect on how their worst qualities/attributes/values could be important to someone else showed increased scores in resilience in terms of family cohesion and social competence, compared to participants who were asked to reflect on why their best qualities/attributes/values were important to them.

All other RM MANCOVA multivariate tests for key outcome variables of hope, empowerment, group identity, self-esteem, and self-stigma were found to have non-significant Time by Condition interactions. Therefore, the hypotheses that the intervention would increase
hope, group identity, self-esteem, and empowerment over time when compared to a control condition were not supported. Additionally, the hypothesis that self-stigma would decrease over time when compared to a control condition was not supported.

**Long Term Effects Intervention Effects: T1-T3.** The RM MANCOVA between T1 and T3 yielded a marginally significant multivariate Time effect (Wilks’ lambda = 0.466, \(F(2, 16) = 3.053, p = 0.035\)) and Time x Condition (Wilks’ lambda = 0.546, \(F(2, 16) = 2.219, p = 0.095\)) interaction for the multiple scales of resilience. Univariate results revealed that the Time by Condition interaction was significant for the resilience-social competence subscale (\(F(1, 21) = 4.657, p = .043\)). For the social competence subscale, scores for participants assigned to the control condition increased from T1 (\(M = 3.396, SD = .352\)) to T3 (\(M = 3.622, SD = .376\)) while scores for participants who were assigned to the self-affirmation intervention remained flat from T1 (\(M = 3.707, SD = .263\)) to T3 (\(M = 3.616, SD = .282\)). Univariate results indicated that the interaction was significant for the main Time effect (\(F(1, 21) = 16.074, p = .001\)) for the family cohesion subscale. Therefore, the hypothesis that the intervention would increase resilience over time when compared to a control condition was not supported. In fact, participants assigned to the control condition saw increases in social competence compared to the participants who engaged in the self-affirmation intervention exercise.

All other RM MANCOVA multivariate tests for key outcome variables of hope, empowerment, group identity, self-esteem, and self-stigma were found to have non-significant Time by Condition interactions. Therefore, the hypotheses that the intervention would increase hope, group identity, self-esteem, and empowerment over time when compared to a control condition were not supported. Additionally, the hypothesis that self-stigma would decrease over time when compared to a control condition was not supported.
Figure 1. Changes in social competence by condition over time.
Exploratory Analyses of Time by Gender Intervention Effects

Although not relevant to the main hypotheses of this study there were significant and marginally significant Time by Gender effects observed. They are reported here for exploratory purposes. From T1 to T2 the Time by Gender multivariate interaction for the multiple scales of resilience approached significance (Wilks’ lambda = .559, $F(2, 18) = 2.367, p = .073$). Univariate results revealed that the interaction was significant for the structured style subscale ($F(1, 23) = 5.65, p = .027$) and for the family cohesion subscale ($F(1, 23) = 8.362, p = .008$). The structures style subscale of resilience measures a person’s ability to organize their life around health routine and goals. For the structured style subscale scores for male participants decreased from T1 ($M = 3.75, SD = .43$) to T2 ($M = 3.50, SD = .66$) while scores for female participants increased from T1 ($M = 3.75, SD = .64$) to T2 ($M = 4.05, SD = .68$). In other words, collapsed over intervention type, males’ ability to create/follow a positive routine decreased while females’ ability increased from T1 to T2. For the family cohesion subscale, scores for male participants decreased from T1 ($M = 4.33, SD = .00$) to T2 ($M = 4.00, SD = .50$) while scores for female participants remained flat from T1 ($M = 3.52, SD = 1.19$) to T2 ($M = 3.65, SD = 1.18$). In other words, collapsed across intervention, males’ family cohesion decreased from T1 to T2 while females’ did not change.

From T1 to T3 multivariate analyses found that there were significant Time by Gender (Wilks’ lambda = 0.433, $F(2, 16) = 3.087, p = 0.033$) interactions for the multiple scales of resilience. Univariate results indicated that the interaction was significant for the family cohesion subscale ($F(1, 21) = 16.241, p = .001$). Scores for male participants decreased from T1 ($M =$
4.33, $SD = .00$) to T3 ($M = 3.39, SD = .82$) while scores for female participants remained flat from T1 ($M = 3.52, SD = 1.19$) to T3 ($M = 3.52, SD = 1.18$). Collapsed over condition, males had less family cohesion from T1 to T3 while females scores did not change. All significant and marginally significant Time by Gender results must be interpreted with caution though, as there were only a total of three male participants included in data analysis for the study.
Figure 2. Changes in family cohesion by gender over time.
Regression Analyses

While findings from the RM ANCOVAs did not support the current study’s hypothesized effect for the self-affirmation intervention, the sample was reconsidered as a whole to test whether self-stigma, another key variable of interest, would significantly predict other key outcome variables over time. For that reason, multiple backwards stepwise regressions analyses were conducted with self-stigma and T1 key outcome variables predicting T2 key outcome variables. Self-stigma was found to be a marginally significant predictor of group identity ($F(2, 23) = 23.02, p = .07, \text{adj. } R^2 = .638$) and a significant predictor of resilience in terms of social competence ($F(2, 23) = 130.50, p < .001, \text{adj. } R^2 = .912$). Therefore, as participants levels of group identity at T2 increased by one-unit, self-stigma decreased ($\text{std } \beta = -0.263, SE = .349$) when controlling for baseline levels of group identity. Additionally, as participants levels of resilience in terms of social competence at T2 increase by one-unit, self-stigma decreased ($\text{std } \beta = -0.156, SE = .163$) when controlling for baseline levels of resilience in terms of social competence (refer to Table 5 and Table 6). All other backwards stepwise regressions did not include self-stigma as a significant predictor in the final model.
Table 5. Prediction of Changes in Group Identity from Initial Self-Stigma

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Predictors</th>
<th>std β</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2 Group Identity</td>
<td>Self-Stigma</td>
<td>-0.263</td>
<td>0.349</td>
<td>0.071</td>
</tr>
<tr>
<td></td>
<td>T1 Group Identity</td>
<td>0.915</td>
<td>0.143</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

*Note. Adj. R² = .638*
Table 6. *Prediction of Changes in Social Competence from Initial Self-Stigma*

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Predictors</th>
<th>std β</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2 Social Competence</td>
<td>Self-Stigma</td>
<td>-0.156</td>
<td>0.163</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>T1 Social Competence</td>
<td>0.887</td>
<td>0.069</td>
<td>0.024</td>
</tr>
</tbody>
</table>

*Note. Adj. $R^2 = .912$*
Discussion

The present study sought to evaluate the effectiveness of a self-affirmation intervention to reduce social identity threat on various outcome variables related to positive psychological wellbeing and mental health stigma for emerging adults with past or present mental health difficulties. It was expected that participants exposed to the self-affirmation intervention would have increased positive psychological wellbeing and decreased self-stigma, compared to participants exposed to a control intervention. More specifically, it was hypothesized that participants exposed to the self-affirmation condition would have increased levels of resilience, empowerment, hope, positive group identity, and self-esteem after completion of the intervention. Additionally, it was anticipated that participants exposed to the self-affirmation intervention, compared to a control condition, would have decreased levels of self-stigma after completion of the intervention. The current study confirmed many significant associations between self-stigma and group identity, resilience, hope and empowerment. It also revealed that initial levels of self-stigma significantly predicted increases in group identity and social competence over time. The predicted self-affirmation intervention effects over time were not found, instead elements of the control intervention seemed more effective at overcoming stereotype threat and positively impacting some outcome measures for psychological wellbeing. These results, and their implications for future research and intervention on mental illness stigma are discussed below.

Intervention Effects
Analysis of the data revealed that there were no significant effects of the self-affirmation intervention on resilience, hope, empowerment, group identity, self-stigma, or self-esteem of the self-affirmation intervention over time. Thus, it appears that the self-affirmation intervention did not adequately address social identity threat, or possibly that social identity threat was not actually triggered in this study. Specifically, the social identity threat used in this study asked participants to disclose their mental illness status through invasive questioning about their past treatment history and age of onset of symptomatology. This pattern of no change for participants in the self-affirmation was seen for both short-term effects assessed immediately after the social identity threat and intervention was delivered, and longer-term effects assessed at a 1-week follow-up. Contrary to predictions, the control intervention had a more significant impact on participants, and possibly on stereotype threat. The only significant effects for increases in psychological wellbeing, as measured by the aforementioned psychological constructs, were found in participants assigned to the control condition. Indeed, participants assigned to the control condition showed increased levels of social competence and family cohesion, subscales of the resilience measure, from baseline to immediate post-stereotype threat assessment. They also showed increased levels of social competence from baseline to the delayed follow-up time point. Participants assigned to the self-affirmation condition saw their scores in family cohesion and social competence remain static across all times. It is important to note that while participants assigned to the self-affirmation intervention saw no increases, there was no evidence of decline or harm in these participants.

While the main hypothesis about self-affirmation was not supported, there were interesting significant findings for gender over time (collapsed over intervention type). These findings are based on a very small number of males (n = 3), and should be interpreted cautiously.
From baseline to immediate post-condition assessment, males’ ability to create/follow a healthy routine decreased while females’ ability increased. For family cohesion, scores for males decreased while scores for females remained static. The same family cohesion result for gender, was seen from baseline to delayed follow-up as well. Although highly tentative, these findings may be important because they indicate that values-focused interventions, like those used in the present study, may not work the same for males and females with mental illness. It seems that males may be more vulnerable to mental-illness-related social identity threat than females, and may be more at risk for declines in indicators of wellbeing in response to social identity threat. Because all males were randomly assigned to the control condition, where they were asked to analyze values that were either unimportant or they were personally weak in but that may be important to others, it is safest to say that this particular type of intervention may worsen the negative impact caused by social identity threat for emerging adult males with mental health difficulties.

These results suggest that more work is needed to discover appropriate modifications of traditional social psychological research on stereotype threat for research and intervention on mental health stigma, social identity threat, and stigma/identity threat reduction. This study was in large part inspired by the work done by Quinn and colleagues (2004) and Cohen and colleagues (2006). Quinn and colleagues (2004) study was one of the first to study if disclosure of a mental illness status, through highly specific treatment history questions, could produce negative academic outcomes. This study paralleled Quinn and colleagues (2004) by implementing a similar social identity threat, the questionnaire about treatment history, while including an additional question about age of onset and a threat reinforcement. The additional question was originally to provide data on a potential moderating variable and the second was to
increase the effectiveness of the threat. Cohen and colleagues (2006, 2009, 2012) study demonstrated the effects of a self-affirmation intervention for African-American and Latinx students on academic results over the period of several months. This study parallels their self-affirmation intervention but also modified the values to include values related to mental illness, coping, and recovery to see if that influenced participants. The overall goal of these modifications was to combine Quinn and colleagues (2004) empirically effective social identity threat with Cohen and colleagues (2006) empirically effective self-affirmation intervention and then translate it for clinical populations. However, it appears that even though both of these studies found significant results there is more work to be done in modifying traditional social psychological intervention approaches for clinical use.

Additionally, it is worth exploring the nature of the control condition, and why it may not be considered a “neutral” condition in the strictest sense of experimental methodology. The “control” condition used in this study had participants “think about times when their least important value/s might be important to someone else, and to describe why the value/s might be important to someone else”. Thus, the control condition featured an other-centered approach to analyzing values rather than a self-based one used by the active intervention in this study. In addition to being other-centered, the control condition was focused on unimportant values rather than important values, and this may have felt less threatening to participants and allowed for some psychological distancing that showed up in improved wellbeing scores. Importantly, the control condition did not involve a strictly negative evaluation of values, but rather offered an opportunity for perspective taking and appreciation of individual differences, as participants were asked to think about how the (unimportant) values they picked could be considered positive/important to someone else. In a way the “control” condition used in this study could be
thought of as a comparison intervention, rather than a strict control intervention, from which positive outcomes could result in terms of psychological wellbeing.

Exploratory qualitative analysis of the text from the responses of participants assigned to the control condition show that many participants chose to engage in talking about their least important values in abstract terms, that was reminiscent of psychological distancing. In fact, it could be proposed that the instructions of the “control” condition allowed participants to get out of the head space of anxiety and worry caused by the threat (i.e., questions about mental health history) and the threat reinforcement (i.e. “the following exercise is diagnostic of your ability to reflect on yourself and your abilities in relation to coping with emotional, behavioral, or mental health issues as a person with mental health difficulties.”). This theorized psychological distancing mechanism is akin to many third-wave interventions, specifically ones focused on mindfulness and meditation. Such interventions (e.g. mindfulness-based cognitive therapy) support people in stepping back and observing rather than engaging with negative thoughts and challenging emotions (Teasdale, Segal, & Williams, 1995). These results offer important insight into how future interventions could proceed and how control conditions need to be carefully considered and evaluated for their potential to have unanticipated therapeutic effects (Gross, Fogg, & Conrad, 1993; Mohr et al., 2009).

In addition to the control condition acting as an active intervention, there are other reasons why the self-affirmation intervention may not have had the intended effect. One of these is high baseline levels of functioning. It is important to note that at baseline participants showed relatively high levels of resilience and other positive psychological characteristics while also displaying low levels of mental illness self-stigma. Additionally, there were extremely low levels of symptom distress and group identity association with the mentally ill across participants at the
baseline. This suggests that on average participants were not suffering from significant adjustment difficulties and/or serious mental illness and were perhaps not impacted much by the threat because they did not self-identify as mentally ill. Participants were recruited on the basis of having past or present mental health difficulties, and it is possible that individuals with moderate to severe current mental health difficulties chose not to participate. Looking at the symptom distress data obtained from the current study participants were seen to have incredibly low levels of distress related to their current mental illness symptomatology. Thus, the sample could be biased towards those who have recovered from mental health difficulties and/or are only currently experiencing mild mental health difficulties. Self-affirmation interventions work in most part by assuaging the ego by focusing on personal strengths and values when a piece of a person's' self-identity comes under attack (Cohen & Sherman, 2006). Since participants did not strongly identify at the outset with the mentally ill (low group identity scores) then the threat induction (e.g. disclosure of mental health status and mental health history) may not have been as impactful as it would have been with either higher mental illness group identification or higher mental illness self-stigma. It also may be that the intervention is more effective for people with higher levels of symptom distress than those in the current study, as such individuals would more probably be affected by chronic mental illness and/or serious mental illness, both of which are associated with higher levels of stigma (Corrigan, 2005).

**Overall Associations and Predictions of Outcomes by Self-Stigma**

Consistent with prior literature self-stigma had a significant negative correlation with self-esteem as a result of the Why Try effect (Corrigan, Larson, & Rusch, 2013). As described by Corrigan and Watson (2002) self-stigma is inversely correlated with self-esteem as higher levels of self-stigma induce feelings of hopelessness, inadequacy, and despair leading to lower levels of
self-esteem and life satisfaction. Additionally, self-stigma was negatively associated with all other indicators of positive psychological wellbeing (i.e. hope, empowerment, and resilience). Consistent with the literature one of the proposed outcomes of self-stigma leads to feelings of hopelessness, disempowerment, and discouraged with treatment that increases chances of dropping out or not fully engaging with treatment (Corrigan & Rao, 2012; Shih, 2004). Additionally, self-stigma and resilience had a strong negative association in line with research done by Crowe and colleagues (2016). Meanwhile resilience was found to have significant positive associations with hope, empowerment, and self-esteem in line with previous research (Corrigan, Larson, & Rusch, 2013; Rusch et al., 2006).

Because intervention effects were modest, additional analyses were conducted to assess how key variables were related to each other over time for the entire sample. These analyses focused on predicting certain outcome variables (e.g. resilience) at one-week follow-up from key predictor variables (e.g., self-stigma) at baseline, controlling for initial baseline levels of the outcome variable. Initial self-stigma for the emerging adults with mental health histories who participated in the current study predicted changes in group identification, with lower initial self-stigma predicting stronger group identification over time. This suggests that participants, regardless of condition, may have become more able to incorporate mental illness into their self-identity because of lower self-stigma. Additionally, regression analyses found initial levels of self-stigma significantly predicted their change in participants’ social competency over time, with lower initial self-stigma predicting increased social competence. The second result is consistent with the literature and consistent with the correlation between the two variables at the baseline level. However, the finding between self-stigma and group identification is different from baseline analyses where group identification was positively associated with self-stigma.
More so, results from the regression analysis offer an interesting way in which self-identity and self-stigma operate in the context of people with mental health conditions over time and when undergoing social identity threat and values assessment. It appears that some aspect of the intervention conditions had an effect that encouraged people to incorporate mental illness into their identity in a positive rather than negative light, especially if they were originally low on self-stigma. Further research into the possible mechanisms behind this relationship should be addressed in future studies.

**Strengths and Limitations**

The current study introduced several significant contributions to the existing literature on mental health stigma, social identity threat, and stigma/identity threat reduction. This was one of the first studies that implemented an innovative and interdisciplinary study of social identity threat in emerging adults with mental health conditions. Innovative, since there have been little past contributions to research on emerging adults with mental illness and their positive ways of coping with the negative side effects of being stigmatized for their mental illness identity this study used a strengths-based intervention approach to reducing the self-stigma associated with a mental illness identity while promoting other psychological constructs associated with positive psychological wellbeing. This study was interdisciplinary in the fact that it was based on a solid foundation of social and clinical psychological research on stereotype threat and self-affirmation interventions focused on reducing the impact of social identity threat. Additionally, this study was one of the first to examine how traditional social psychological research on stereotype threat for research and intervention on mental health stigma, social identity threat, and stigma/identity threat reduction worked for clinical populations.
Although this research made several contributions to the research on mental health stigma, it also had several limitations. As mentioned previously participants showed high baseline levels of positive psychological characteristics and low levels of negatively psychological characteristics associated with psychological wellbeing, leaving little room for change based upon condition assignment. Also due to recruitment strategies participants had to have some level of comfort with their past or present experiences with mental illness as they were required to reach out to the researcher, thus making visible a previously invisible (and often devalued) aspect of their identity. This could have contributed to the lower levels of self-stigma and higher levels of positively associated psychological characteristics observed in this sample at the baseline level. Additionally, many more females with mental health difficulties were willing to participate than males, even though the researcher is male and known to many as an individual who is open and non-judgmental about mental illness. Clearly, strategies for more targeted outreach to males with mental health difficulties addressing their possible concerns about self-identification or study participation should be developed.

Other limitations are related to the study’s methodology. Compared to Cohen and colleagues’ (2006, 2009, 2012) original studies, this intervention was delivered at only one time point and did not consider longitudinal psychological levers to increase the effectiveness of the self-affirmation intervention. This could have weakened the hypothesized results of the self-affirmation intervention. For example, if the intervention had been given at the beginning of the semester and then re-delivered at periods of relatively higher distress (e.g. midterms and finals) this has been shown to leverage more successful immediate and longitudinal intervention effects (Cohen et al., 2006, 2009). Additionally, the immediate post-manipulation survey was administered in a secure, distraction free, and private laboratory setting, whereas baseline and
delayed follow-up surveys were both emailed to participants to complete in whatever environment they chose. Although it is unlikely, it is possible that these environmental changes could have led to changes in participants’ responses to survey questions on various measurement scales.

Another methodological limitation is that the delayed follow-up was only measured after a period of one-week post receiving intervention. This is different from the original study conducted by Cohen and colleagues’ (2006), as well as from other research conducted on these types of interventions, where researchers wait up to a few months before re-measuring. Measuring the key outcome variables used in this current study at a delayed follow-up consisting of multiple months would have allowed for a more effective analysis of the duration of the self-affirmation intervention effects if it had worked, and could have allowed for the detection of a possible “sleeper effect” in the present study. That is, it could be that the self-affirmation intervention would emerge over time, perhaps in times of stress, or with repeated reflection to build resilience.

It is important to note that these results should not be generalized to all college students across the United States. The majority of the sample were white females. Because of this, results should be interpreted with caution in generalizing to other races and to males. Emerging adults with mental health difficulties who identify as students of color and attend predominantly white institutions, as was the context for the present study, may be doubly vulnerable to social identity threats related to mental illness (Gary, 2005). Already feeling marginalized because of their racial or ethnic minority status, the mental health social identity threat could have been more potent, and the self-affirmation intervention could have been more powerful. Whether self-affirmation interventions work in the same way for emerging adults from different cultural
backgrounds, and how vulnerability to different types of social identity threats interact, are important topics for future investigation. Because of the unequal gender distribution, gender differences likely would have been more pronounced if the sample had contained more males. Additionally, the study also suffered from a lack of males randomly assigned to the self-affirmation intervention condition. Prior research has shown that males tend to approach coping from a detached and rational style compared to women who are more likely to engage in an emotional and avoidant style (Matud, 2004). This could explain why males were affected so strongly by the control condition in which important values were analyzed from an other or detached perspective while also considering (i.e. rationalizing) why these values could be important.

**Future Directions**

There are many different future directions that can be taken using this study as a starting point. Most importantly data were collected on symptom distress, social support, and age of onset of mental illness symptomatology but not sufficiently analyzed. Each of these three constructs may act as potential moderating variables that may help to explain the mechanisms involved in influencing the effects of the intervention. For example, having access to strong and supportive social networks has been found to be crucial in reducing self-stigma and promoting positive recovery outcomes (Bockting et al., 2013; Luckstead et al., 2011). Additionally, the more extreme the disruptions caused by the mental illness (i.e. symptom severity/distress) have been linked to poorer recovery outcomes and increased self-stigma (Corrigan, 2005). Therefore, future studies should take great importance to incorporate measurements of these constructs (i.e. social support, symptom distress, and age of onset) into their study. Learning from the control condition used in this study, future studies investigating self-affirmation interventions should use
a more strictly neutral condition for comparison. Another possibility is comparing the effects of the same self-affirmation intervention with a mindfulness intervention that is similar to the control condition used in the current study. Also, exploring the value of other-oriented versus self-oriented and unimportant versus important values assessments as ways of recovering from identity threat or taking perspective on current mental health difficulties would be useful. It is likely that different intervention strategies will work for different types of people. For examples, emerging adult males may prefer a more distancing rather than self-focused processing strategy. It has been shown that males, more significantly than females, are more likely to adopt a coping style that is rational and detached much like a psychological distancing mechanism (Mautd, 2004). Additionally, it has been seen that men are less likely to acknowledge that mental illness is a problem or that it even exists which could lead to a more avoidant coping style reminiscent of psychological distancing (Ward, Wilshire, Detry, & Brown, 2013). This would allow future research to more accurately and statistically examine if other-centered values analysis with a psychological distancing element is a promising intervention pathway for reducing self-stigma and promoting psychological wellbeing.
References


Boyd, J. E., Otilingam, P. G., & DeForge, B. R. (2014). Internalized Stigma of Mental Illness Inventory-10. *PsycTESTS*. https://doi.org/Full; Full text; 999930874pass:_[full_001.pdf*


Appendix A - Recruiting Materials

Blurb for online and in print sources: Hey all, I am Bobby Manning and I am currently conducting an Honors Thesis in the Psychology Department and am looking for students to participate in my study. Have you experienced any past or present mental health concerns? I am interested in learning more about how people cope differently and at all different levels. The study includes confidential questionnaires as well as an individual writing task in a private setting. Participants will be compensated up to $15 (in gift cards) for their participation or through SONA credit! For more information on participating in the study please email me at rmannin1@conncoll.edu.
Appendix B - RSA (Friborg et al., 2003)

For each of the following items place a checkmark in one of the boxes. Each box corresponds to a numerical rating measured on a scale from 1 (the far left box which corresponds to the answer choice presented on the left end, e.g. “I always find a solution”) to 5 (the far right box which corresponds to the answer choice on the right end, e.g. “I often feel bewildered”), with 3 as “in-between”. Remember, this is not a test and there are no right or wrong answers. The "right" answer is the one that is true for you. Be sure to make only one check mark on each item.

<table>
<thead>
<tr>
<th>Appendix: the Resilience Scale for Adults, 33 items</th>
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</thead>
<tbody>
<tr>
<td><strong>Personal strength/Perception of self</strong></td>
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<tr>
<td>When something unforeseen happens</td>
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<tr>
<td>My personal problems</td>
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<tr>
<td>My abilities</td>
</tr>
<tr>
<td>My judgements and decisions</td>
</tr>
<tr>
<td>In difficult periods I have a tendency to</td>
</tr>
<tr>
<td>Events in my life that I cannot influence</td>
</tr>
</tbody>
</table>

| **Personal strength/Perception of future**           |
| My plans for the future are                         | difficult to accomplish  | possible to accomplish |
| My future goals                                     | I know how to accomplish| I am unsure how to accomplish |
| I feel that my future looks                         | very promising           | uncertain               |
| My goals for the future are                         | unclear                  | well thought through    |

| **Stress management**                               |
| I am at my best when I                              | have a clear goal to strive for | can take one day at a time |
| When I start on new things/projects                 | I rarely plan ahead, just get on with it | I prefer to have a thorough plan |
| I am good at organizing my time                     | are absent in my everyday life | wasting my time          |
| Rules and regular routines                         |                                | simplify my everyday life |

| **Social competence**                               |
| I enjoy being                                       | together with other people  | by myself               |
| To be flexible in social settings                   | is not important to me       | is really important to me |
| New friendships are something                       | I make easily               | I have difficulty making |
| Meeting new people is                               | difficult for me            | something I am good at   |
| When I am with others                               | I easily laugh              | I seldom laugh           |
| For me, thinking of good topics for conversation is | difficult                  | easy                    |

| **Family cohesion**                                 |
| My family's understanding of what is important in life is | quite different than mine | very similar to mine     |
| I feel                                              | very happy with my family   | very unhappy with my family |
| My family is characterized by                        | disconnection               | healthy coherence        |
| In difficult periods my family                       | keeps a positive outlook on the future | Views the future as gloomy |
| Facing other people, our family acts                 | unsupportive of one another | loyal towards one another |
| In my family we like to                              | do things on our own        | do things together       |

| **Social resources**                                |
| I can discuss personal issues with                  | no one                      | friends/family-members   |
| Those who are good at encouraging me are             |                      | nowhere                  |
| The bonds among my friends is                       | weak                       | strong                   |
| When a family member experiences a crisis/emergency | I have informed right away | it takes quite a while before I am told |
| I get support from                                  |                         | No one                   |
| When needed, I have                                 | no one who can help me     | always someone who can help me |
| My close friends/family members                     | appreciate my qualities    | dislike my qualities     |
Appendix C - ISMI-10 (Boyd, Otilingam, & DeForge, 2014)

We are going to use the term “emotional, behavioral or mental health difficulty” for the following questions, but please think of it as whatever you feel is the best term for it. For each question, please mark whether you

1= strongly disagree, 2= agree, 3= disagree, 4= strongly disagree

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>People with emotional, behavioral or mental health difficulties tend to be violent</td>
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<tr>
<td>People with emotional, behavioral or mental health difficulties make important contributions to society</td>
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<tr>
<td>I don’t socialize as much as I used to because my emotional, behavioral or mental health difficulty might make me look or behave “weird.”</td>
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<td>Having an emotional, behavioral or mental health difficulty has spoiled my life.</td>
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<tr>
<td>I stay away from social situations in order to protect my family or friends from embarrassment</td>
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<tr>
<td>People without an emotional, behavioral or mental health difficulty could not possibly understand me</td>
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<tr>
<td>People ignore me or take me less seriously just because I have an emotional, behavioral or mental health difficulty.</td>
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<tr>
<td>I can’t contribute anything to society because I have an emotional, behavioral or mental health difficulty.</td>
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<tr>
<td>I can have a good, fulfilling life, despite my emotional, behavioral or mental health difficulties.</td>
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<tr>
<td>Others think that I can’t achieve much in life because I have an emotional, behavioral or mental health difficulty.</td>
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Appendix D - Group Identification (Watson, Corrigan, Lars, & Sells, 2007)

Rate the items using the following scale.

1 = Not at all; 2 = a little; 3 = a moderate amount; 4 = a lot; 5 = a great deal

_____ 1. How much you identify with the group called “people with emotional, behavioral or mental health conditions”

_____ 2. Feel strong ties with the group called “people with emotional, behavioral or mental health conditions”

_____ 3. See yourself as part of the group called “people with emotional, behavioral or mental health conditions”

_____ 4. How often you think about yourself as part of “people with emotional, behavioral or mental health conditions”

_____ 5. How close you feel to other members of the group called “people with emotional, behavioral or mental health conditions”
Appendix E - RSES (Rosenberg, 1965)

Rate the items using the following scale

1 = strongly agree 2 = agree 3 = disagree 4 = strongly disagree

_____ 1. I feel that I am a person of worth, at least on an equal basis with others.
_____ 2. I feel that I have a number of good qualities.
_____ 3. All in all, I am inclined to feel that I am a failure.
_____ 4. I am able to do things as well as most other people.
_____ 5. I feel I do not have much to be proud of.
_____ 6. I take a positive attitude toward myself.
_____ 7. On the whole, I am satisfied with myself.
_____ 8. I wish I could have more respect for myself.
_____ 9. I certainly feel useless at times.
_____ 10. At times I think I am no good at all.
Appendix F - YES-MH (Walker et al., 2010)

Rate the items using the following scale.

1 = definitely false; 2 = probably false; 3 = probably true; 4 = definitely true

_____ 1. I help other young people learn about services or supports that might help them.

_____ 2. I tell people in agencies and schools how services for young people can be improved.

_____ 3. I feel that I can use my knowledge and experience to help other young people with emotional, behavioral or mental health difficulties.

_____ 4. I take opportunities to speak out and educate people about what it’s like to experience emotional, behavioral or mental health difficulties.

_____ 5. I have ideas about how to improve services for young people with emotional, behavioral or mental health difficulties.

_____ 6. I feel I can help improve services or supports for young people with emotional, behavioral or mental health difficulties.

_____ 7. I know about the legal rights that young people with emotional, behavioral or mental health difficulties have.

_____ 8. I work with providers to adjust my services or supports so they fit my needs.

_____ 9. I understand how my services and supports are supposed to help me.

_____ 10. I know the steps to take when I think that I am receiving poor services or supports.

_____ 11. My opinion is just as important as service providers’ opinions in deciding what services and supports I need.

_____ 12. I believe that services and supports can help me reach my goals.

_____ 13. I tell service providers what I think about services I get from them.

_____ 14. When a service or support is not working for me, I take steps to get it changed.
_____ 15. I feel my life is under control.
_____ 16. When problems arise with my mental health or emotions, I handle them pretty well.
_____ 17. I know how to take care of my emotional, behavioral or mental health.
_____ 18. I feel I can take steps toward the future I want.
_____ 19. I make changes in my life so I can live successfully with my emotional, behavioral or mental health challenges.
_____ 20. I focus on the good things in life, not just the problems.
Appendix G - ADHS (Snyder et al., 1991)

Read each item carefully. Using the scale shown below, please select the number that best describes YOU and put that number in the blank provided.

1 = Definitely False; 2 = Probably False; 3 = Probably True; 4 = Definitely True

____ 1. I can think of many ways to get out of a jam.
____ 2. I energetically pursue my goals.
____ 3. I feel tired most of the time.
____ 4. There are lots of ways around any problem.
____ 5. I am easily defeated in an argument.
____ 6. I can think of many ways to get the things in life that are most important to me.
____ 7. I worry about my health.
____ 8. Even when others get discouraged, I know I can find a way to solve the problem.
____ 9. My past experiences have prepared me well for my future.
____ 10. I’ve been pretty successful in life.
____ 11. I usually find myself worrying about something.
____ 12. I meet the goals that I set for myself.
Appendix H - Mental Health History (adapted from Quinn et al., 2004)

1. Have you ever experienced any emotional, behavioral or mental health difficulties that significantly affected your life (e.g., feeling very depressed)?
   
   (a) No
   
   (b) Yes
   
   (c) I choose not to answer this question

2. Have you ever been treated for an emotional, behavioral or mental health difficulty?
   
   (a) No
   
   (b) Yes
   
   (c) I choose not to answer this question

3. If you have been treated for the emotional, behavioral or mental health difficulty, what treatment was it (is it)?
   
   (a) Counseling (therapy) only
   
   (b) Medication only
   
   (c) Both counseling and medication

5. To the best of your recollection, when was the first time you experienced significant emotional, behavioral, or mental health difficulties?
   
   (b) Childhood
   
   (c) Adolescence
   
   (d) College
(e) I choose not to answer this question.
Appendix I - SDS (adapted from SCL-90 and BSI)

**SYMPTOM DISTRESS (ADAPTED FROM SCL-90 AND BSI)**

I am going to ask you some questions about how much you were distressed or bothered by some things during the last seven days. Using this scale, I'd like you to tell me which of the answers on the scale best describes how you feel.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>A little bit</td>
<td>Moderately</td>
<td>Quite a bit</td>
<td>Extremely</td>
</tr>
</tbody>
</table>

During the past seven days about how much were you distressed or bothered by...

SD1. Nervousness or shakiness inside

SD2. Feeling suddenly scared for no reason

SD3. Feeling fearful

SD4. Feeling tense or keyed up

SD5. Spell of terror or panic

SD6. Feeling so restless you couldn't sit still

SD7. Heavy feelings in arms or legs

SD8. Feeling afraid to go out of your home alone

SD9. Feeling of worthlessness

(Standard norms: 4 = skipped item, 5 = don't know, 6 = refused to answer, 7 = not applicable, 8 = invalid response, 9 = item for another reason)

**Addiction Severity Index (ASI)**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>A little bit</td>
<td>Moderately</td>
</tr>
</tbody>
</table>

SD10. Feeling lonely even when you are with people

SD11. Feeling weak in parts of your body

SD12. Feeling blue

SD13. Feeling lonely

SD14. Feeling no interest in things

SD15. Feeling afraid in open spaces or on the streets
Appendix J - Adapted MSPSS (Zimet et al., 1988)

We are interested in how you feel about the following statements. Read each statement carefully.

Indicate how you feel about each statement.

Select the “1” if you Strongly Disagree

Select the “2” if you Disagree

Select the “3” if you Somewhat Disagree

Select the “4” if you are Neutral

Select the “5” if you Somewhat Agree

Select the “6” if you Agree

Select the “7” if you Strongly Agree

3. My family really tries to help me. 1 2 3 4 5 6 7

4. I get the emotional help and support I need from my family. 1 2 3 4 5 6 7

6. My friends really try to help me. 1 2 3 4 5 6 7

7. I can count on my friends when things go wrong. 1 2 3 4 5 6 7

8. I can talk about my problems with my family. 1 2 3 4 5 6 7

9. I have friends with whom I can share my joys and sorrows. 1 2 3 4 5 6 7

11. My family is willing to help me make decisions. 1 2 3 4 5 6 7

12. I can talk about my problems with my friends. 1 2 3 4 5 6 7
Appendix K - Affirmation Condition Packet

You will be providing written responses to questions about your ideas, your beliefs, and your life. While answering the various questions in the exercise, you should bear in mind that, there are no right or wrong answers.

Read the list of values below and think about each one. Circle two or three of the most important values to you.

**Athletic ability**

**Being good at art**

**Being smart or getting good grades**

**Creativity**

**Managing stress**

**Independence**

**Living in the moment**

**Membership in a social group (such as your community, racial group, or school club)**

**Music**

**Politics**

**Relationships with friends or family**

**Religious values**

**Sense of humor**

**Engaging in self-care**

Look at the values you picked as most important to you and think about times when these values were important to you. Now describe in a few sentences why the selected values are important to you. Focus on your thoughts and feelings, and don’t worry about spelling, grammar, or how well written it is.

List the top two reasons why the values you selected were important to you.

Indicate your level of agreement with the following statements concerning the values you selected.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>strongly agree</td>
</tr>
</tbody>
</table>

_____ 1. These values have influenced my life.

_____ 2. In general, I try to live up to these values.

_____ 3. These values are an important part of who I am.

_____ 4. I care about these values.
Appendix L - Control Condition Packet

You will be providing written responses to questions about your ideas, your beliefs, and your life. While answering the various questions in the exercise, you should bear in mind that, there are no right or wrong answers.

Read the list of values below and think about each one. Circle two or three of the least important values to you.

Athletic ability
Being good at art
Being smart or getting good grades
Creativity
Managing stress
Independence
Living in the moment
Membership in a social group (such as your community, racial group, or school club)
Music
Politics
Relationships with friends or family
Religious values
Sense of humor
Engaging in self-care

Look at the values you picked as least important to you and think about times when your least important values might be important to someone else. Now describe in a few sentences why the selected values might be important to someone else. Focus on your thoughts and feelings, and don’t worry about spelling, grammar, or how well written it is.

List the top two reasons why someone else would view the chosen values as important.

Indicate your level of agreement with the following statements concerning the values you selected.

1 strongly disagree 2 3 4 5 6 strongly agree

_____ 1. These values have influenced some people.
_____ 2. In general, some people try to live up to these values.
_____ 3. These values are an important part of some people.
_____ 4. Some people care about these values.
Appendix M - Informed Consent

Informed Consent Document

Study Title: Supporting Psychological Wellbeing in Young Adults

Principal Investigator: Bobby Manning
270 Mohegan Avenue, New London, CT 06320
rmannin1@conncoll.edu

You are being invited to participate in Bobby Manning’s research about psychological wellbeing in the face of stressful/adverse situations. This research will involve answering a pre and post-lab questionnaire on different items such as self-esteem, empowerment, and mental health history as well as an individual writing task on values and experiences. While the direct benefits of this research to society are not known, you may learn more about your ability to cope with stress in the context of emotional, behavioral, or mental health difficulties. This research will take about 1.75 hours, approximately 20-30 minutes to complete the pre-lab questionnaire, 45 minutes for the individual lab session, and 20-30 minutes for the follow up questionnaire. For your participation you will be compensated up to $15, in the form of gift cards, which will be delivered electronically at the completion of the study. You will earn $10 of credit after the lab portion of the study, and $5 after the completion of the final set of questionnaires. There are no known risks or discomforts related to participating in this research other than those that occur in everyday life when thinking about emotional, behavioral or mental health difficulties. Bobby Manning can be contacted at rmannin1@conncoll.edu. Your participation is voluntary, and you may decline to answer any questions as you see fit. You may withdraw from the study without penalty at any time. Information you provide will be identified with a unique identification number and NOT your name. You may contact the researcher who will answer any questions that you may have about the purposes and procedures of this study. This study is not meant to gather information about specific individuals and your responses will be combined with other participants’ data for the purpose of statistical analyses. You are being asked to consent to publication of the study results as long as the identity of all participants is protected. This research has been approved by the Connecticut College Human Subjects Institutional Review Board (IRB). Concerns about any aspect of this study may be addressed to asdev@conncoll.edu

A copy of this informed consent will be given to you.

I am at least 18 years of age, I meet the study requirements of having a past or present emotional, behavioral or mental health difficulty, have read these explanations and assurances, and voluntarily consent to participate in this research on supporting psychological wellbeing.
<table>
<thead>
<tr>
<th>Name of participant (please print)</th>
<th>Signature of participant</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of person obtaining consent (please print)</td>
<td>Signature</td>
<td>Date</td>
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</tbody>
</table>
Appendix N - Debriefing Statement

Debriefing Statement

First of all, thank you for participating in this research dealing with resilience in the context of mental health adversity. In this research, I am comparing the effect of a self-affirmation intervention, when compared to a neutral control intervention, on self-assessments of resilience, self-esteem, group identification, hope, empowerment and internalized stigma. In addition to these results I am looking to see if self-assessments on perceptions of social support, symptom distress, type and onset of emotional, behavioral, or mental health difficulty moderate the relationship between the intervention and the aforementioned outcomes. Participants were included in the analysis of this study if they answered yes to the first two items on the mental health history section of the pre-test questionnaire, indicated some type of treatment via the third item, and indicated one of the categories presented by the fourth item.

You were primed with a “stereotype threat” in the form of disclosing a history of mental illness and stating that the post-test questionnaire was “diagnostic” of their abilities. In past research done on stereotype threat, specific individuals are primed with stereotype-relevant questions (e.g., providing information about themselves that is commonly assessed in psychological research like race or gender) to induce stereotype threat before assessment. The questions asked for the purpose of inducing “stereotype threat” in this study are no different than questions that are routinely asked in studies of mental health and mental health attitudes at Connecticut College. In addition, the results of the post-test questionnaire are in no way static or attributable to a fixed characteristic of your personality. This was only a test that could reveal what you were feeling in that exact moment. Resilience is ultimately a very fluid construct that is made up of multiple dynamic processes and characteristics.

The study used both an experimental and control condition in order to reduce potential negative impacts on participants. Participants in the self-affirmation (e.g. experimental) condition were asked to “look at the value[s] you picked as most important to you,” and to think about times when...“these values”...were “important to you.” (Cohen et al., 2006, p. 3). Participants assigned to the control condition were asked to “think about times when their least important value/s might be important to someone else, and to describe why the value/s might be important to someone else” (Cohen et al., 2006, p. 3). The protocol for the control condition is still framed in a positive manner just from a different viewpoint than the affirmation condition. Additionally, the study used an affirmation-based intervention to reduce potential negative impacts in half of the participants immediately, and in all of them by the end of the study.

In the spirit of equal opportunity if you were assigned to the control condition and you wish to take part in the self-affirmation condition I have attached a link below to a view-only google doc.
that contains the materials and instructions for the self-affirmation condition. There is no requirement to complete this activity.

**Self-affirmation Exercise Link:**
https://docs.google.com/document/d/1mnHxHixtMWqzwS8iBz_VcTU51ElB-EkWzSoJ1Cr52gg/edit?usp=sharing

One of the issues in resilience and intervention literature is the role empowerment or reframing an individual with a devalued identity has on resilience characteristics/processes. Typically researchers have been focused on defining resilience, critiquing the research, or solely on self-esteem outcomes. This study will help elucidate the ways in which empowering individuals or reframing their positionality as one of positivity can help build resilience and other related outcomes. In addition this study will provide a brief self-guided and easy to use anti-stigma intervention that addresses the stigma’d reality people with mental health identities face in an everyday context.

If answering any of the questions throughout the study was upsetting in any way, you should contact student counseling services at SCS@conncoll.edu, by email, or 860-439-4587 xt. 4587, by phone.

If you have any questions or concerns about the manner in which this study was conducted, please contact the IRB Chairperson Ann Devlin (asdev@conncoll.edu).

If you are interested in this topic and want to read the literature in this area, you might enjoy the following articles:


You may also contact me, Bobby Manning, at rmanni1@conncoll.edu for additional resources.