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**Mental Health Stigma Reduction: Piloting the LINKS Anti-Stigma Program**

**Tekia Jones**


**Brent Burhite**

**Uniformed Services University of the Health Sciences**

**Daniel K. Inouye Graduate School of Nursing**

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Tekia L. Jones, BSN, RN, Maj, USAF, PMHNP - DNP Student  
Daniel K. Inouye Graduate School of Nursing  
Uniformed Services University  
30 Apr 2018



Brent H. Burhite, BSN, RN, Maj, USAF, PMHNP - DNP Student  
Daniel K. Inouye Graduate School of Nursing  
Uniformed Services University  
30 Apr 2018

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## Travis AFB

**Project Title:** Mental Health Stigma Reduction: Piloting the LINKS Anti-Stigma Program

**Authors:** Jones, T.L. & Burhite, B.H.

**Background or Problem/Issue:** In the United States, 43.6 million (18.1%) adults have some form of a mental health (MH) disorder. Forty to sixty percent of military members could benefit from treatment, but do not seek help. MH stigma serves as a barrier to help-seeking behaviors by negatively impacting treatment and increasing risks which includes: increased distress, lowered resilience, and suicide. Stigma impacts coping, self-esteem, attitudes toward treatment-seeking, intentions to seek treatment, well-being, quality of life, productivity, treatment initiation, and treatment success. Programs that reduce stigma have the potential to improve mental health outcomes.

**Clinical Question or Purpose:** The purpose of this project was to determine whether the implementation of an anti-stigma program (LINKS) affects mental health stigma in military mid-level leadership. In military mid-level leaders, does implementation of the LINKS anti-stigma training program affect mental health stigma, measured before (T1), and immediately after (T2) the educational training?

**Project Design:** A pilot of the LINKS evidenced-based anti-stigma program was implemented at Travis AFB. Pre- and post-implementation evaluations (Military Stigma Scale – MSS) were administered to measure outcomes and determine whether the intervention was relevant and effective in the target population (military mid-level leadership).

**Analysis of Results:** A paired t-test was used to address whether there was a change in stigma (as measured by the MSS) before and after LINKS intervention. Attending the LINKS presentation significantly reduced MH stigma. Difference in MSS scores before and after the

LINKS intervention were statistically significant for both public ( $t=6.32$ ;  $p<.0001$ ) and self-stigma ( $t=4.21$ ;  $p=.0002$ ).

**Proposed Organizational Impact/Implications for Practice:** The effectiveness of LINKS in stigma reduction may positively impact the Military Health System's Quadruple Aim and service-specific resiliency programs, given the relationship between stigma, well-being, and treatment seeking behaviors. Implementation of LINKS may contribute to: enhancing military readiness, mitigating risks, and improving mental health outcomes for the military population.

## **Introduction**

Stigma is a barrier to care that adversely impacts mental health (MH) treatment. Stigma is defined as, "a negative and erroneous attitude about a person; it is a prejudice or negative stereotype" (Britt, Greene-Shortridge, & Castro, 2007, p. 157) and often is perpetuated both publically and interpersonally. In terms of mental illness, this represent invalidating and poorly justified knowledge structures leading to discrimination (Corrigan & Penn, 1999). Two components of MH stigma are public and self-stigma. Public stigma is the reaction of others to people with mental illness and is reported as the most common barrier to care (Iversen et al., 2011). Self-stigma is an intrapersonal response to how the public portrays individuals with MH problems leading to loss of self-esteem and self-efficacy (Corrigan, Kerr, & Knudsen, 2005; Corrigan, Morris, Michaels, Rafacz, & Rusch, 2012).

Overall, MH stigma is a dynamic process consisting of prejudices, stereotypes, labeling, and discrimination. Service members may perceive or internalize this marked identity about themselves or people with MH disorders (Acosta et al., 2014; Britt, Greene-Shortridge, & Castro, 2007). Resiliency, strength, and self-sufficiency are highly regarded and expected in the military culture thereby amplifying MH stigma (Iversen et al., 2011). Non-treatment in service members cost the military by negatively impacting retention, work productivity, and organizational readiness (Tanielian et al., 2008). Delayed treatment caused by MH stigma leads to lowered self-esteem, familial disruption, and a negative influence on overall well-being and efficiency (Skopp, Bush, Vogel, Wade, Sirotin, McCann, & Metzger-Abamukong, 2012).

## **Significance of the Problem**

MH stigma impedes help-seeking behavior and adversely affects many aspects of an individual's life. In the US, approximately 57.7 million adults annually experience a mental

disorder and one in seventeen people have a severe mental health condition (Kessler, Chiu, Demler, & E.E., 2005). The challenges for persons suffering with mental illness are not only the associated symptoms and disabilities, but also the stereotypes and prejudices that result from misconceptions about mental illness. As a result, people with mental illness are at risk for functional impairment and are often robbed of opportunities that define quality of life such as jobs, safe housing, and adequate health care (Corrigan, Morris, Michaels, Rafacz, & Rusch, 2012).

The World Health Organization (WHO) designed a conceptual framework measuring morbidity, mortality, financial impact, and overall global burden of disease (Mathers, Ezzati, & Lopez, 2007). The impact of mental illness is profound, accounting for 30 percent of the world's disability and is projected to reach 15 percent of the total global burden of disease by 2020 (World Health Organization, 2001). The global costs associated with mental illness were \$2.5 trillion in 2010 and are estimated to surpass \$6 trillion by 2030, with approximately \$4 trillion reflecting productivity loss due to illnesses (Bloom et al., 2011). MH stigma is a critical barrier to mentally ill persons seeking and sustaining treatment (Britt et al., 2008; Corrigan, 2016). A critical first step in limiting the individual and societal impact of mental illness is ensuring early recognition of signs and procurement of proper treatment.

MH issues influence military suicide at a greater rate than exposure to combat (Leard-Mann et al., 2013). One in five military members from Operation Iraqi Freedom and Operation Enduring Freedom (OIF/OEF) returned with mental health concerns. Military suicide is a "national crisis" with one active duty service member committing suicide every 36 hours and one veteran committing suicide every 80 minutes (NAMI, 2012). In this at-risk population, treatment avoidance often increases the risk for poor MH outcomes (Acosta et al., 2014). Inadequate or

delayed treatment affects overall patient health by exacerbating symptoms and prolonging recovery, leading to functional impairment often resulting in safety concerns such as increased risk for suicide (Parle, 2012). Seeking MH services decreases aggravating factors and is presumed a protective factor against suicide (Reynders, Kerkhof, Molenberghs, & Van Audenhove, 2014).

An estimated 60 percent of service members who experience MH problems do not seek professional treatment (Britt, Greene-Shortridge, & Castro, 2007; Sharp et al., 2015), with stigma reported as a deterrent (Iversen et al., 2011). In a survey conducted by Iversen (2011), approximately 70 percent of the United Kingdom (UK) active duty military respondents feared receiving MH services. Fears included decreased confidence from those within their unit and concern their leadership would treat them differently. Additionally, nearly 50 percent of the respondents believed it would harm their career (Iversen, 2011). Although studies found the overall prevalence of MH stigma is decreasing in members of the Armed Forces, it is increasing among service members who screen positive for MH symptoms or disorders (Acosta et al., 2014; Gould et al., 2010; Hoge et al., 2004).

In 2009, the U.S. Department of Defense (DoD) launched the \$2.7 million-dollar Real Warrior Campaign (RWC) to combat MH stigma. The RWC is designed to encourage help-seeking behaviors through a multimedia public awareness platform (Dingfelder, 2009). In 2014, researchers from the RAND corporation, evaluating MH stigma in the military, identified five DoD funded programs primarily targeting stigma reduction: Afterdeployment.org, Breaking the Stigma, Embedded Behavioral Health (EBH), Military Pathways, and Real Warrior Campaign (RWC). At present, there are no standardized education and contact-based MH anti-stigma programs utilized across DoD. Furthermore, not all service members are aware of the currently

available platforms, and many of these programs have not been evaluated for acceptability or impact on stigma reduction (Hurtado, Simon-Arndt, McAnany & Crain, 2015). Despite efforts by the DoD and the Veterans Health Administration (VA) to improve MH services, many service members continue to avoid seeking treatment and hold stigmatizing views regarding utilization of MH services (Acosta et al., 2014; Hurtado et al., 2015). Treatment avoidance adversely affects the social, emotional, and physical well-being of service members which, in turn, impacts the mission and combat readiness of this population (Acosta et al., 2014).

In 2009, the Neuroscience Education Institute (NEI) conducted a needs assessment within an Army warrior transition unit (WTU). Over 100 MH staff members and 300 members of the WTU command leadership received four days of intensive MH training and assessment in forms of surveys, interviews, and educational program. The results revealed numerous institutional issues to include leadership's contribution to organizational MH stigma, lack of confidence in MH care, and unfounded beliefs that service members either faked or over exaggerated their MH symptoms (Stahl, 2009). Policies and leaders may either contribute to or reduce MH stigma (Acosta et al., 2014). In a study by Britt, Wright, & Moore (2012; 2011), the authors examined the role of leadership in predicting stigma and other barriers to treatment, revealing several organizational predictors of stigma. These predictors included positive and negative behaviors of leaders, with "negative/destructive" behaviors creating an environment more conducive to high levels of stigma and positive behaviors created lower practical barriers (Britt, Wright, & Moore, 2011; 2012).

### **Methods/Literature Synthesis**

The initial clinical question was to determine whether anti-stigma education programs reduce MH stigma in an adult population. An electronic search was conducted via CINAHL,

PsychINFO, and PubMed. Keywords used in the literature search were stigma, mental illness, stigma reduction, programs, mental health, health-seeking behaviors, campaigns, and barriers to care. Additionally, a manual search of relevant references from bibliographies was done capturing studies not found during previous search methods. English language, articles dated 2005-2015, adult population, and peer-reviewed scholarly articles were also part of the inclusion criteria. Articles focusing on stigma related to processes other than MH (i.e. HIV/AIDs, Cancer, Tuberculosis, etc.) and non-adult populations were excluded.

Of the 442 articles found during the initial search, 15 were relevant for inclusion in the summary findings. Using the John Hopkins Nurse Evidence Based Practice (JHNEBP) research tool, the quality, quantity, and consistency of each article was evaluated. Eleven of the 15 articles were high quality, while the remaining four were deemed to be good quality by the rating scale. According to information gathered from the articles, there were several contact-based (Bayar, et al., 2009; Corrigan, et al., 2007; Evans-Lacko, et al., 2014; Finkelstein, et al., 2006; Finkelstein, et al., 2007; Finkelstein, et al., 2008; Jorm, Christensen, & Griffiths, 2006; Rusch, et al., 2008; Turner, et al., 2013) and education-based (Friedrich, et al., 2013; Michaels, et al., 2014; Papish, et al., 2013; Patten, et al., 2012; Ritterfield & Jin, 2006; Wood & Wahl, 2006) anti-stigma programs effective in reducing MH stigma in various adult populations.

The anti-stigma intervention programs largely targeted public stigma. Of the 15 anti-stigma articles reviewed, six programs were solely education-based (i.e. web-based/videos/educational handouts/pamphlets; Friedrich, et al., 2013; Michaels, et al., 2014; Papish, et al., 2013; Patten, et al., 2012; Ritterfield & Jin, 2006; Wood & Wahl, 2006) and the remaining nine incorporated both contact (i.e. in-person or video based contact with individual with mental illness and their lived experiences) and education-based material (Bayar, et al.,

2009; Corrigan, et al., 2007; Evans-Lacko, et al., 2014; Finkelstein, et al., 2006; Finkelstein, et al., 2007; Finkelstein, et al., 2008; Jorm, Christensen, & Griffiths, 2006; Rusch, et al., 2008; Turner, et al., 2013). While all reviewed programs demonstrated efficacy in the reduction of MH stigma, those incorporating both education and contact-based initiatives provided a larger impact on stigma change (Ben-Zeev, Corrigan, & Langford, 2012; Corrigan et al., 2007).

### **Identifying an Anti-Stigma Program**

Acosta et al. (2014) identified 26 potential DoD programs targeting stigma, however; only five were evidence-based and met inclusion criteria primarily focusing on MH stigma reduction. The five programs included Afterdeployment.org, Breaking the Stigma, Embedded Behavioral Health (EBH), Military Pathways, and Real Warrior Campaign (RWC) (Acosta et al., 2014, p. 167-168). Military Pathways are no longer a single entity and have consolidated information with Afterdeployment.org. Afterdeployment.org is a web-based program providing education, self-guided solutions geared toward changing attitudes about treatment-seeking, and video testimonials (Acosta et al., 2014). The program target service members, care providers, family members, and veterans, utilizing the Military Stigma Scale (MSS) developed by T2 researchers to assess stigma (Skopp et al., 2012). Breaking the Stigma is an Army Special Operations Command (USASOC) driven training program, with stigma reduction efforts aimed at building resiliency and enhancing performance through creating an awareness of the importance of psychological wellness. The program connects leaders and soldiers with resources through use of a website, downloadable guides, and a 24-minute video discussing lived experiences of senior-ranking and other respected special operations personnel. The video focuses on combat and deployment related issues and the career consequences of both seeking and not seeking treatment (Acosta et al., 2014).

EBH is utilized Army-wide and is an early intervention treatment program using a multidisciplinary approach to mental health care decentralized to units. The program establishes working relationships between providers and unit leadership targeting stigma as a barrier to care (Acosta et al., 2014). Lastly, the RWC is an online media public awareness campaign utilizing video profiles of real service members encouraging help-seeking behaviors for invisible wounds. The program uses a targeted messaging strategy centered on the importance of psychological fitness and stigma reduction to reach services members, families, veterans, and health care providers (Acosta et al., 2014). To utilize the programs, individuals must first be aware of their availability. Additionally, many of the programs are geared toward a specific population of post-deployments and special operations personnel and efficacy surrounding stigma reduction initiatives must be established (Acosta et al., 2014; Hurtado et al., 2015).

Based on the literature review, the authors sought to find an education and contact-based program broadly addressing stigma with the potential for implementation across multiple services to a generalized military population. The authors consulted with leading researchers in the field of mental health stigma, Dr. Thomas Britt and Dr. Patrick Corrigan. Two evidence-based stigma reduction programs consisting of education and contact-based elements designed and tested in a military population were identified: Road to Mental Readiness (R2MR) and the LINKS program (P. Corrigan, personal communication, November 21, 2016; T. Britt, personal communication, November 28, 2016).

R2MR is a well validated program developed by a 2007 Canadian Armed Forces (CAF) working group to change attitudes towards MH (Medical Corps International Forum-MCIF, 2015), and was further adapted and tested by the Mental Health Commission of Canada (2016). The origins of this program were in 2007, when Megan Thompson and Donald McCreary at

Defense Research and Development Canada (DRDC) initiated the development of an educational program to combat negative attitudes towards MH in the CAF (MCIF, 2015). Their focus expanded to include increasing MH literacy, performance enhancement, decreasing barriers to care, stigma reduction, and promotion of well-being (MCIF, 2015). The foundational building block for the training is the Mental Health Continuum Model (MHCM) which gives visual representation to both MH and mental illness as two points on an overarching psychological continuum (MCIF, 2015). The goal of R2MR is to create a nationally standardized MH educational program received throughout the military career of CAF personnel (MCIF, 2015; National Defence & Canadian Armed Forces, 2015).

LINKS is another program showing great promise as a training curriculum designed to reduce stigma and promote treatment-seeking. The program was developed by Dr. Thomas Britt and colleagues at Clemson University then translated by the Walter Reed Army Institute of Research (WRAIR). LINKS is an acronym created by the WRAIR highlighting five key messages: (L) look for signs, (I) increase awareness, (N) neutralize stigma, (K) know your role and (S) support help seeking (Amiya, 2016). LINKS is designed to (1) reduce stigma by exposing participants to messages that combat negative beliefs about MH concerns, (2) change the military culture of self-reliance surrounding MH by promoting help-seeking as a sign of strength, (3) improve peer and leadership support through educational awareness of signs, symptoms, and available resources regarding MH, and (4) reduce treatment (logistical and administrative) barriers by providing information on how to access MH services (Amiya, 2016).

In a study conducted by Rusch et al. (2008) of 43 undergraduate college students, contact coupled with psychoeducation was more effective in reducing stigma of MH disorders compared to psychoeducation alone. The structured format of LINKS incorporates didactic instruction,

contact-based education through video vignettes, and discussion-based open forums with numerous activities geared towards improving the climate for those seeking MH treatment and MH stigma reduction (Amiya, 2016).

The authors considered both evidence-based stigma reduction programs (R2MR and LINKS), but chose to implement of the LINKS program at Travis AFB. Though both R2MR and LINKS address MH stigma reduction as an outcome measure, LINKS provided the most concise format to deliver information to the target audience of military mid-level leaders (O-1 to O-3 and E-5 to E-6). R2MR is a broad-spectrum program designed to be implemented across the career of a military member, while LINKS training focuses primarily on stigma and can be utilized as a “stand-alone” intervention. The target audience, military mid-level leaders, function as frontline leaders in the military setting, with fear of leadership stigmatization being a noted as a deterrent for military service members to seek MH care (Zinzow et al, 2013). Additionally, research suggests leaders influence and set the climates of their organizations, making mid-level leaders a key population to target in facilitating stigma reduction and treatment-seeking behaviors (Britt, Wright, & Moore, 2011; 2012; Corrigan, 2005). Although LINKS is a novel program without robust research supporting efficacy, all the individual elements of the program are derived from evidence-based interventions to combat MH stigma.

LINKS is an acronym and serves as a mnemonic for five key messages of the training. The first tenet of LINKS, (L)ook for signs, educates participants on the signs and symptoms of MH illness for early identification in their subordinates/co-workers and helps identify when professional treatment may be required. With stigma being the most common barrier for those with MH conditions receiving care (Iverson et al., 2011), early recognition of a potential MH

problem is important. Inability to identify a MH problem and the need for care is a significant reason those with MH illness do not seek treatment (Prins et al., 2010).

The “I” in LINKS stands for (I)ncreased awareness. This involves knowing the available resources, capabilities, and what services members can expect from MH treatment. Service members often fear they will be treated differently, lose the confidence of their superiors/co-workers, as well as harm their career when seeking MH services (Iverson et al., 2011). However, Hurtado et al. (2015) found when offered education about the effectiveness of MH treatment, 52 Marine senior-enlisted and officer leaders endorsed increased confidence in the benefit of seeking MH services. Furthermore, amongst the officer cohort, the post-training survey showed a decrease in fear of negative career consequences for seeking early-intervention MH services (Hurtado et al., 2015).

The (N)utralize barriers portion of the LINKS training program provides an open forum discussion about myths, attitudes, beliefs, and misconceptions regarding MH illness and available treatments. Addressing myths is important as they serve as barriers to treatment. A study by Goldstein et al. (2009) demonstrated a decrease in stigma and barriers to care, in 272 Reserve and National Guard OEF/OIF veterans, after the implementation of an educational intervention bolstering unit support and combatting misconceptions about MH services.

The last two components of the LINKS program, (K)now your role and (S)upport help seeking, provides education to military members and leaders on their role in stigma reduction. Additionally, these components support the overarching themes of overcoming barriers, the importance of leaders setting the example in self-care and seeking care to maintain overall well-being and encouraging military members to receive necessary MH services when appropriate.

MH stigma is the most prevalent barrier to help seeking behavior (Iverson et al., 2011) and combating negative beliefs aids in support of seeking treatment (Lindsey, Joe, & Nebbitt, 2010).

The project was implemented at Travis Air Force Base, California, home of the largest Air Mobility Command (AMC) in the Air Force. The military treatment facility, David Grant Medical Center (DGMC), serves a population of more than 130,000 eligible beneficiaries in the surrounding areas (Rivezzo, 2016). At time of program initiation, the installation recently experienced a completed suicide (personal communication, October 1, 2015). MH stigma and unsupportive leadership were noted as contributing factors and continue to serve as barriers to care.

### **Clinical Question**

In military mid-level leaders (officers O-1 to O-3 and enlisted E-5 to E-6), does implementation of the LINKS anti-stigma training program affect mental health stigma, measured before (T1), and immediately after (T2) the educational training?

### **Focus Areas**

The project consisted of four primary focus areas: 1) Adaptation, 2) Delivery/Implementation, 3) Evaluation, and 4) Dissemination. First, the authors identified an evidence-based stigma reduction program consisting of education and contact-based elements (LINKS) and adapted for presentation to the intended audience. This involved minor changes to the presentation that substituted service specific headings (Air Force vs. Army) while retaining original content and messaging. Second, the authors ensured consistent delivery through manualized-instruction, guaranteeing reliability of the intervention. Facilitators included the two members of the DNP project and material was delivered as established in the LINKS manual.

Third, the results were evaluated based on the MSS pre-and post-assessment scores. Finally, the results were disseminated to leadership and key stakeholders.

### **Relevance to Military Nursing**

Nurses are recognized for their role in health promotion and wellness (mental, spiritual, physical, and social), both are essential components of total force fitness and military readiness (Chiefs of Staff, 2011). Because MH stigma negatively impacts all aspects of psychological wellness, Advanced Practice Registered Nurses (APRNs) can play a role in patients' decisions to pursue treatment by either enhancing feelings of stigma or encouraging care seeking (Ngu et al., 2010). APRNs are charged with advocating on behalf of their patients to ensure safe, high quality care (Tomajan, 2012). This includes efforts toward changing the culture of MH, building patient trust, and encouraging help-seeking behaviors (Gibbons, Migliore, Convoy, Greiner, & DeLeon, 2014). These actions result in decreased resources exhaustion and long term healthcare costs associated with untreated mental illness (NAMI, 2012).

### **Goals**

The primary military relevance of the original LINKS study included increasing the reach of military MH services, refining an intervention to enhance a supportive climate of treatment-seeking, and mitigating the impact of common MH concerns (Amiya, 2016). The short-term goals of this project were to improve MH literacy, increase recognition of the need for care in self and others, raise awareness of available MH resources, and decrease perceived stigma as a barrier to care. The long-term goals include retention of MH knowledge and literacy, change in institutional policy to shift military culture and beliefs regarding MH, and the implementation of a DoD-wide evidence-based anti-stigma program.

### **Global Impact**

Stigma reduction has implications related to the Military Health System (MHS) Strategic Framework priorities (Quadruple Aim) and is directly in line with the DoD's efforts to reduce stigma related to MH. The Quadruple Aim priorities are to increase military readiness, promote better health, and provide better patient care at lower costs. Anti-stigma programs have the potential to decrease the incidence and prevalence of mental illness through early recognition of the signs, increase organizational commitment and perceived support, and enhance operational readiness and effectiveness. Furthermore, decreasing health care costs, increasing productivity, and improving retention rates are benefits of such programs (MHCC, 2016).

### **Organizing Framework**

Social Cognitive Theory (SCT) and Social Ecological Theory (SET), as described by Bandura (2002) and Bronfenbrenner (1979) respectively, were used as theoretical frameworks for this project. SCT has proven useful in implementing educational programs when the intent is to foster a behavior change through acquired knowledge (White, 2012, p. 54). During the literature review, a large body of evidence supported the use of educational programs to increase knowledge and yield a behavior/attitude change, further justifying the use of SCT framework in delivering the LINKs anti-stigma program. The LINKs program is rooted in SCT principles of behavior change through videos constructed to model and promote treatment seeking behaviors. Additionally, the focus is removing barriers to care including MH stigma and creating a supportive climate for service members who need help.

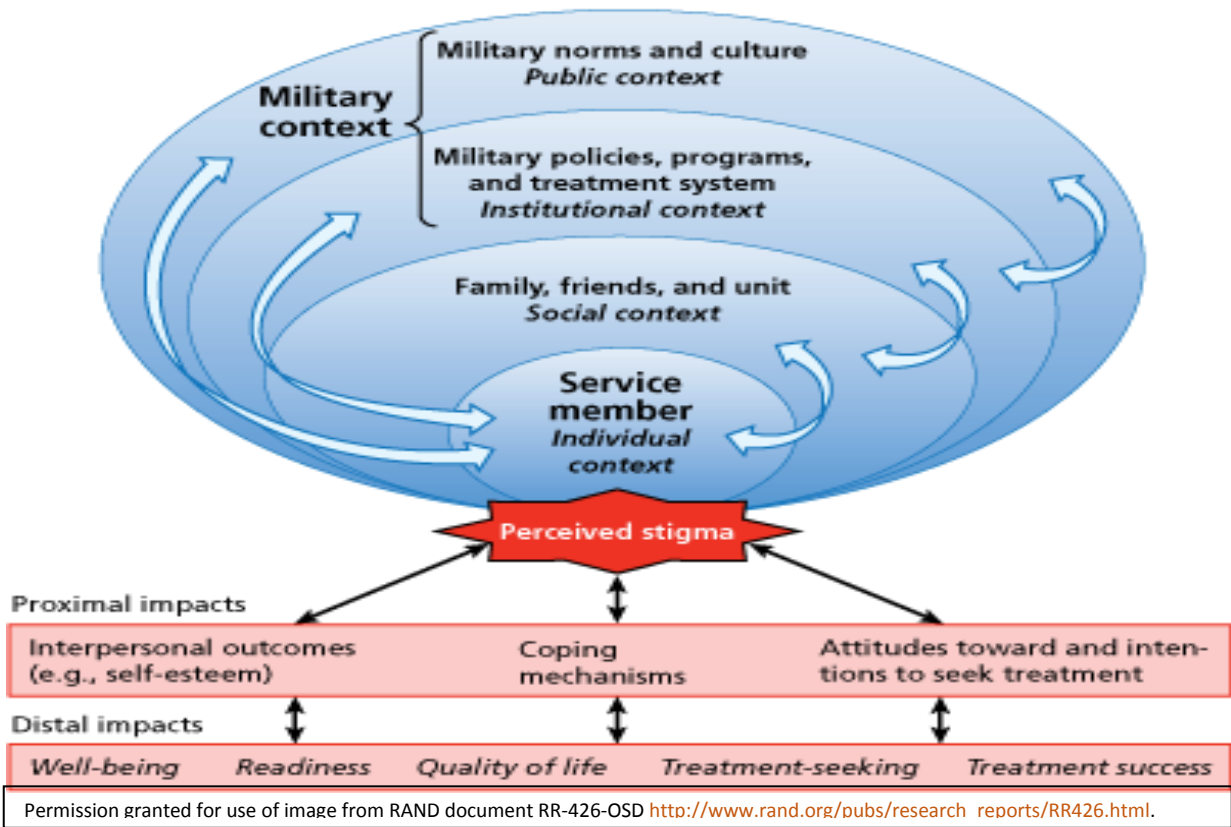
Societal norms often impact change related to MH stigma (Acosta et al., 2014). It is important to acknowledge the diversity within the context of military culture and understand its dynamic nature when implementing an anti-stigma program (Bandura, 2002). The understanding of SET is useful when considering and creating awareness regarding the impact of

public stigma on the individual and society (Thornicroft et al., 2016). Figure 1 is an adaptation of the SET and outlines the conceptual model of stigma reduction in the military. The integral elements of this model include the member or person at the core operating in and influenced by the following contexts: public, institutional, social, and individual (Acosta et al., 2014). For the purposes of this project, the authors focused on the public and individual context.

Stigma is not static, but a complex and dynamic process that changes throughout a lifetime. Both theoretical models, SCT and SET, explain the ability of targeted interventions to impact MH stigma based on changing individual components i.e. context or determinants (Acosta et al., 2014; Bandura, 2002). Utilizing these models assisted the authors in targeting public and individual contexts as well as personal, behavioral, and environmental determinants.

White (2012) outlined two phases for implementation proving beneficial at the Phase II site: setting up an appropriate orientation environment and adequate support networks for implementation efforts. Phase one consisted of creating the stage for the DNP project through leadership briefings outlining: program characteristics (assessment & education), advantages, roles and responsibilities, ease of implementation, and the need for top level support. Phase two involved exploring the available resources to support implementation efforts at Travis AFB to include the Clinical Investigation Facility, behavioral health services, Community Action Board, and Airmen and Family Readiness Centers.

**Figure 1. Conceptual Model of Stigma Reduction in the Military**



## Project Design

### General Approach

The LINKS program offers two training modules targeting either lower enlisted personnel (i.e. E-1 thru E-4) or their leadership (Amiya, 2016). The training modules are designed to increase help seeking behavior through stigma reduction, challenging military “norms” (i.e. encouraging self-reliance rather than seeking help), improving peer/leadership support related to MH concerns, and providing education on access to MH services/potential barriers to care (Amiya, 2016). Both training modules offer a one-hour and a two-hour training session geared towards the target audience. For purposes of this project, the team implemented the one-hour leadership training module.

To measure the efficacy of the intervention and the overall effect on MH stigma, the team utilized the Military Stigma Scale (MSS). The MSS was created in 2012 to address potential shortcomings in stigma measurement scales that were developed and tested primarily in the civilian population (Skopp et al., 2012). The MSS was validated with a group of 1038 active duty soldiers and demonstrated an internal consistency of 0.95 (public stigma) and 0.87 (Self-stigma). This measurement tool is comprised of 26-items designed specifically to measure both public and self-stigma and is scored on a 4-point Likert scale (1 = Definitely Disagree, 2 = Somewhat Disagree, 3 = Somewhat Agree, 4 = Definitely Agree; Skopp et al., 2012). The MSS includes military-specific cultural variations and provides a validated tool to accurately measure MH stigma in the military (Skopp et al., 2012).

### **Setting**

The setting of the pilot-study was at Travis AFB, CA. Project implementation on military installations is significant because military installations impact service member's quality of life, in turn, affecting military readiness and mission capabilities ("Fort Hood History," 2016). Military installations provide the platform for war training, serve as homesteads for service members and their families, and provide fixtures for deployment and redeployment combatant operations ("Fort Hood History," 2016).

### **Procedural Steps**

1. Identification of stakeholders and key leadership at the medical facility and line units.
2. Procurement of leadership buy-in buy through reinforcing benefits of maintaining a fit, resilient fighting force through mental health obtainment.
3. Incorporation of marketing strategies for program implementation.
4. Recruitment of mid-level leadership to attend LINKS training.

5. Implementation of LINKS anti-stigma program.
6. Assessment of intervention utilizing the MSS through pre-and post-surveys (pre-and post-intervention).
7. Analysis of results from MSS surveys to determine effect of LINKS program on MH stigma.
8. Dissemination of results of LINKS pilot study.

### **HIPAA Concerns (IRB)**

This DNP project did not gather protected health information (PHI). Surveys were conducted pre-and post-intervention to gauge the efficacy of the program. Training attendance and completion of surveys were interpreted as implied consent and affirmation of eligibility to participate. An anonymous pre-and post-training survey was administered using paper copies of the MSS with a unique numerical code for each participant. The project was submitted to the local Institutional Review Board (IRB) at Travis AFB. After local IRB review, this project met criteria for exempt research. In accordance with the exemption criteria in Chart 4 at HHS.gov, the obtained information was not recorded in a way in which the subject may be identified. Any disclosure of the information gathered did not place the subject at risk for criminal/civil liability or damage to their financial standing, employability, or reputation (HHS, 2016).

### **Project Results**

A total of 41 participants, recruited from David Grant Medical Center (DGMC) and the Security Forces Squadron (SFS), were enrolled via convenience sampling into this project. To assess the effectiveness of this LINKS anti-stigma program on reducing MH stigma, the MSS was administered pre- and post-intervention. The MSS was found to be both valid and reliable

by Skopp et al. (2012) with an internal consistency rating of 0.95 (public stigma) and 0.87 (self-stigma).

STATA version 14.2 (College Station, TX) was used for all statistical analyses. The MSS (Skopp et al., 2012) consisted of 26 questions that captured the constructs of public stigma (perception of external stereotypes and prejudices) and self-stigma (internalized feelings of incompetence), and responses to individual questions were combined to come up with composite scores for the two constructs. Of the 41 participants initially enrolled, only 38 completed all items in both the pre-LINKS and post-LINKS MSS surveys measuring public Stigma, while 39 participants completed all items in both the pre-LINKS and post-LINKS MSS surveys measuring self-stigma. There were no statistically significant differences ( $p > .05$ ) based on gender (male vs. female) or marital status (married vs. single) for respondents on pre-LINKS or post-LINKS MSS scores.

A paired *t*-test was used to address the primary clinical question regarding whether there was a change in stigma (as measured by the MSS) before and after the LINKS intervention. Attending the LINKS program was shown to significantly reduce MH stigma as measured by the MSS. The difference in mean MSS scores before and after the LINKS intervention was statistically significant for both public ( $t=6.32$ ;  $p<.0001$ ) and self-stigma ( $t=4.21$ ;  $p=.0002$ ); see figure 2 and tables 1 and 2.

Figure 2. Mean MSS score change post intervention

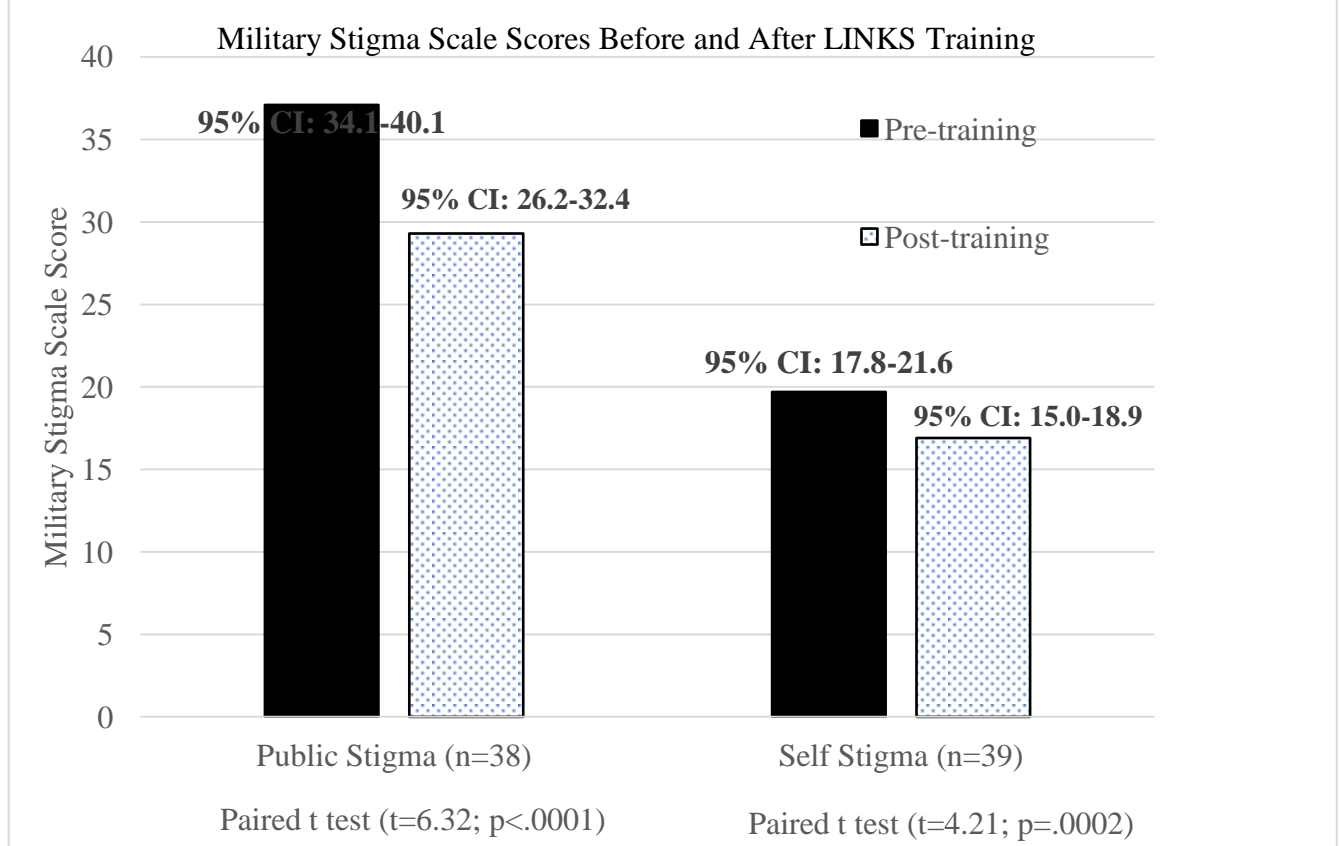


Table 1. Pre- and Post – Mean MSS public stigma scores from STATA

Paired t test

Variable	Obs	Mean	Std. Err.	Std. Dev	95% Conf. Interval	
Public-stigma pre-scores	38	37.07895	1.475442	9.095237	34.08942	40.06848
Public ~ Post	38	29.31579	1.536704	9.472878	26.20213	32.42945
Diff	38	7.763158	1.227607	7.567477	5.27579	10.25053
Mean (diff) = mean (publicstigmasc~e – publicstigmasc~t)					t= 6.3238	
Ho: Mean (diff) = 0					degrees of freedom = 37	
Ha: Mean (diff) < 0		Ha: Mean (diff) !=0		Ha: Mean (diff) >0		
Pr (T < t) = 1.0000		Pr( T  >  t  = 0.0000		Pr (T > t) = 0.0000		

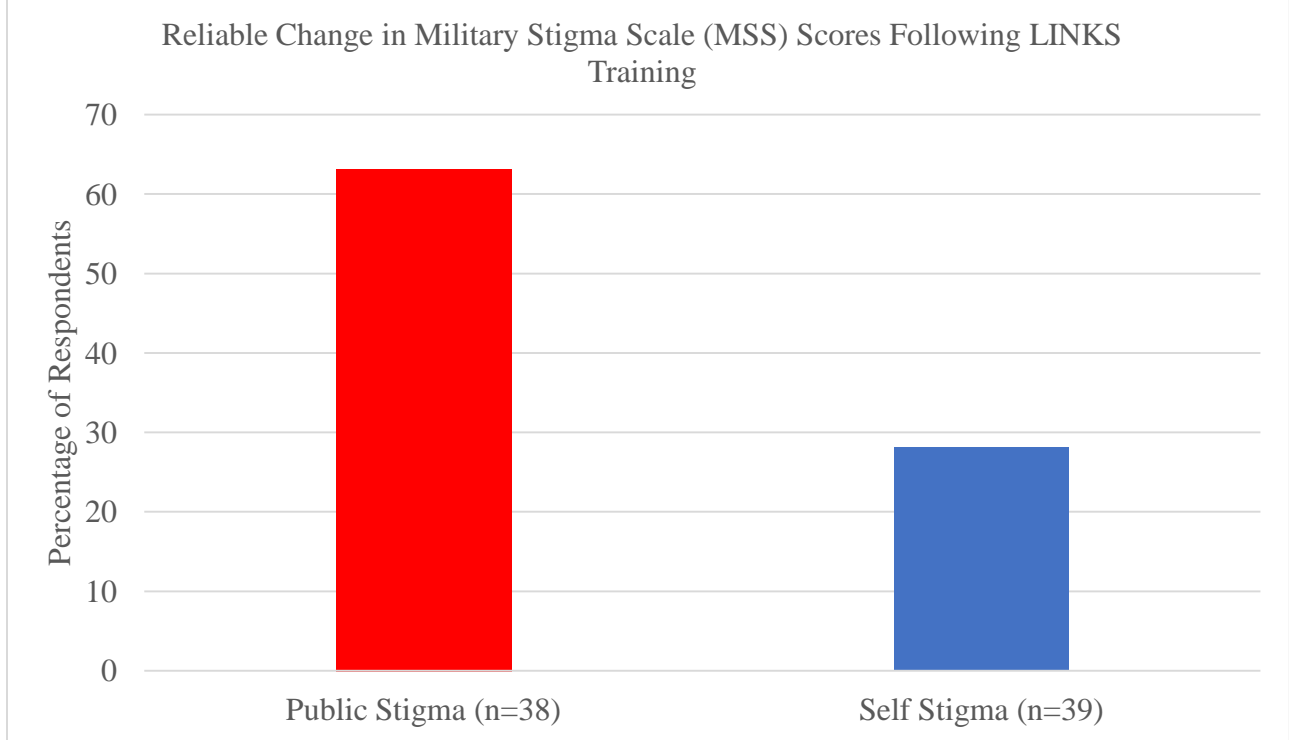
**Table 2. Pre- and Post – Mean MSS self-stigma scores from STATA**

**Paired t test**

<b>Variable</b>	<b>Obs</b>	<b>Mean</b>	<b>Std. Err.</b>	<b>Std. Dev</b>	<b>95% Conf. Interval</b>	
<b>Self-stigma pre-scores</b>	39	19.67949	.9474177	5.916622	17.76154	21.59743
<b>Self-stigma post-scores</b>	39	16.92308	.9561115	5.970915	14.98753	18.85862
<b>Diff</b>	39	2.75641	.654547	4.087645	1.431349	4.081471
<b>Mean (diff) = mean (selfstigmascor~e – selfstigmascor~t)</b>				<b>t= 4.2112</b>		
<b>Ho: Mean (diff) = 0</b>				<b>degrees of freedom = 38</b>		
<b>Ha: Mean (diff) &lt; 0</b>		<b>Ha: Mean (diff) !=0</b>		<b>Ha: Mean (diff) &gt;0</b>		
<b>Pr (T &lt; t) = 0.9999</b>		<b>Pr( T  &gt;  t  = 0.0002</b>		<b>Pr (T &gt; t) = 0.0001</b>		

In addition to the inferential statistics comparing MSS scores before and after LINKS, a further analysis incorporating the Cronbach  $\alpha$  value, the variance of observed scores, and the difference between scores at each administration was used to calculate an index of reliable change with a cut-off value of 1.65 (complete calculation methods detailed by Hageman and Arrindell, 1999). The results of the “Reliable Change Index” (RCI) are depicted in Figure 3, and show the percentage of subjects who exceeded that cut-off value of 1.65, thus signifying a “reliable change” as a result of the intervention (Hageman and Arrindell, 1999, pp. 1173-1174). Based on this metric, over half (63%, or 24/38) of participants demonstrated “reliable change” on the public stigma portion of the MSS following LINKS training. In contrast, fewer than one-third (28%, or 11/39) of subjects showed reliable change on the self-stigma portion of the MSS (See Figure 3).

Figure 3. Reliable Change Index



### Analysis of the Results

The results of this pilot study provide evidence that the LINKS program is an effective strategy in reducing both public and self-stigma through increased education (i.e. increased awareness/knowledge of mental illness, dispelling myths, and facilitating help seeking) and contact-based (i.e. hearing stories of successful lived experiences) delivery formats. Several theoretical models surrounding MH stigma reduction describe important components of such evidence-based interventions (Collins, Wong, Cerully, Schultz, & Eberhart, 2012). Empirical evidence also supports educational interventions in reducing self-stigma (Collins et al., 2012; MacInnes & Lewis, 2008; Alvidrez, Snowden, Rao, & Boccellari, 2009).

The current project results displayed greater reduction in public stigma than self-stigma. This finding may be related to the need for a more long-term individually targeted intervention such as cognitive behavioral-based techniques for a larger impact on self-stigma (Acosta et al.,

2014). These types of interventions may be helpful in controlling thoughts, feelings, as well as improving self-efficacy, empowerment, and self-determinations in this population (Acosta et al., 2014; Collins et al., 2012). There is still much work to be done, specifically, whether the effects of the LINKS program are stable in the long-term. Thus, longitudinal studies would be a direction for future research.

### **Organizational Impact / Implications to Practice & Policy**

Mental health stigma reduction and early symptom recognition are key aspects of the LINKS program. Stigma reduction has implications related to the MHS's Quadruple Aim. Three goals of the Quadruple Aim are to maximize military readiness, improve the health of the population and provide better patient care at a lower cost (Hunter & Goodie, 2012). The LINKS program has the potential to decrease incidence and prevalence of mental illness, increase organizational commitment and perceived support, and enhance operational readiness and effectiveness. Additionally, decreased health care costs, increased productivity, and retention are long-term benefits of such programs (MHCC, 2016). The LINKS program is in line with the DoD efforts to promote treatment-seeking through anti-stigma initiatives, where help-seeking behavior is defined as a sign of strength (Acosta et al., 2014). By promoting help-seeking behavior and psychological wellness through stigma reduction, LINKS may positively impact the Military Health System (MHS) Quadruple Aim and service-specific resiliency programs.

### **Future Directions for Research and Practice**

The LINKS project implemented at DGMC demonstrated a statistically significant reduction in both public and self-stigma measures post intervention, but the study was small in scale (41 participants) and lacked a control group. Per conversations with Dr. Rachel Amiya

from the Center for Military Psychiatry & Neuroscience at the WRAIR, a larger scale LINKS research study is currently being proposed at Fort Stewart, GA that would incorporate a control group and the creation/utilization of measurement tools to further gauge program efficacy. They also plan to study the effect of both the one and two-hour LINKS intervention, providing a clearer indication of the impact of the LINKS program in a military population thus directing pathways for future research.

Future research iterations of the LINKS program should incorporate larger participant populations with longer time between pre-and post-measurements to provide further clarification regarding program long-term efficacy. While the pilot-study was small in scale and limited to mid-level leaders assigned to DGMC or SFS, conducting additional research incorporating all military ranks and careers is important in determining program efficacy to justify expansion of the program to all service members.

In the presence of additional large scale efficacy studies the authors recommend implementation of the LINKS anti-stigma program for mid-level leadership across the military with the goal of integrating anti-stigma programs as a required training throughout a military career. Resiliency programs centered around current MH concerns (i.e. PTSD, suicide) have already become mandatory training requirements across the services, and LINKS would serve as an adjunct to programs already in place that focus on bolstering the MH awareness of service members.

Per conversations with 60<sup>th</sup> Medical Group (DGMC) Commander Col Michael J. Higgins, there are opportunities to incorporate stigma reduction principals from the LINKS program into the Green Dot training platform (M. Higgins, personal communication, April 10, 2018). Based on an evidence-based public health model, the Air Force adopted the Green Dot

training platform in 2016 to help decrease interpersonal violence and sexual assault amongst Airmen (Green Dot, 2016). Going forward it is important to be deliberate in messaging and providing a synergistic approach with possible collaboration with the Green Dot facilitators to help shape training program curricula.

### **Conclusion**

Stigma remains a key deterrent for the 60 percent of service members experiencing MH problems that do not seek MH services (Britt, Greene-Shortridge, & Castro, 2007; Iversen et al., 2011; Sharp et al., 2015). After a comprehensive literature review it was determined that anti-stigma education programs that incorporated both education and contact-based interventions reduce mental health stigma in the adult population. The evidence-based LINKS program implemented at DGMC provided a structured format that incorporated didactic instruction, contact-based education and discussion-based forums that focused on improving the climate for those seeking mental health treatment and overall mental health stigma reduction. Since leadership stigmatization acts as a deterrent for military service members to seek MH care (Zinzow et al, 2013), military mid-level leaders were chosen as the target audience.

Our implementation of the evidence-based LINKS program demonstrated a statistically significant reduction in both public and self-stigma measures post-intervention. The education and contact-based format was tailored for mid-level leaders, but the efficacy of stigma reduction programs in adult populations has been well established. Although the study was small in scale, the promising results warrant further research and potential expansion of the LINKS anti-stigma program to a broader military audience. The overall health of the military population is adversely affected by inadequate mental health treatment, but implementation of programs such as LINKS across the Armed Services will enhance military readiness and help mitigate the risk

of poor mental health outcomes for an at-risk military population (Acosta et al., 2014; Parle, 2012).

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## TABLES

Number	Reference	Settings and sample size	Intervention	Results	Strength of Evidence
1	Corrigan, et al., 2007	<u>Setting:</u> Community College Chicago area <u>Sample:</u> N=244 people <u>Design:</u> (RCT)	<u>Intervention:</u> Education contact video-taped. <u>Control group:</u> Education video. <u>Follow-up:</u> One week.	Results suggest that the education videotape had limited effects, mostly showing improvement in responsibility (people with mental illness are not to blame for their symptoms and disabilities). The filmed version of contact led to greater stigma improvement compared to education; Watching the contact videotaped showed significant improvement in pity, empowerment, coercion, and segregation. Contact effects were evident at post-test and 1 week follow-up	JHNEBP Level IA; clear question was stated. Samples were allocated in control and study groups. The data collection and explanation was clear. The results resented clearly. Blinding was not done. Overall the study was well done.
2	Finkelstein, et al., 2008	<u>Setting:</u> Herzen Russian State Pedagogic University (St Petersburg), School of special university; graduate students <u>Sample:</u> N=193 <u>Design:</u> (RCT)	<u>Intervention:</u> Computer-mediated intervention and printed educational materials. <u>Control group:</u> No intervention <u>Follow-up:</u> 6 months.	After the intervention BSSD, CAMI and PKS scores significantly improved both in RG and PG. After 6 months in RG two out of three CAMI subscales and PKS scores were not different from the baseline. In PG all stigma and knowledge changes remained significant. Conclusions: This study demonstrated that computers can be an effective mean in changing attitudes of students toward psychiatric patients.	JHNEBP Level IA: A clear question was stated. Appropriate design and samples randomized into control and study groups. The data collection was clear. No blinding. 6-month Follow-up was done. All participants who entered were accounted for in the conclusion. Overall the study was well done.
3	Finklestein, et al., 2007	<u>Setting:</u> 91 graduate students from the Herzen Russian State Pedagogic University School of Special Education. The study subjects were randomly allocated to one of three groups. The second study visit was completed by 65 students due to the turnover of the students and absence some of them from the classes. <u>Design:</u> Random	<u>Intervention:</u> Of those students, 36 read two articles and a brochure (reading group) devoted to the problem of psychiatric stigma, and 32 studied an anti-stigma computer program (program group). 23 students were in a control group and received no intervention.	Both interventions were initially highly effective in reducing psychiatric stigma. In the program group the level of stigma decreased from 18.8±3.8 to 14.2±4.6 points (BSSD, t-test for paired samples p<0.0001) and from 24.0±5.0 to 15.8±4.6 points (CAMI, t-test for paired samples p<0.0001). In the reading group the level of stigma dropped from 18.5±3.9 to 15.3±4.4points (BSSD, t-test for paired samples p<0.0001) and from 24.1±6.1 to 20.3±6.4 points (CAMI, t-test for paired samples p<0.0001). Only in the program group the level of stigma in six months was significantly lower than at baseline (t-test, two sample assuming equal variances CAMI p<0.001, BSSD p=0.02)	JHNEBP Level IA: A clearly focused question was stated, an appropriate design was applied and a sample was allocated into a control and study group. The data collection was clearly stated. The results were precisely and clearly presented. Follow-up was 6 moths s/p intervention. The sample size was moderate and all were students were randomly selected.

		controlled			
4	Finklestein, et al., 2006	<p><b>Setting/Sample:</b> N=51 consecutive fourth-year medical students assessed impact of anti-stigma computer-assisted education system (Anti-Stigma CO-ED)</p> <p><b>Design:</b> Convenience sample</p>	<p><b>Intervention:</b> Participants were evaluated before and after using the Anti-Stigma CO-ED system. The curriculum addressed three components of stigma: cognitive (lack of knowledge or untrue beliefs about psychiatric disorders), emotional (feelings toward people with these conditions and its treatment), and behavioral (behavior toward people with mental health problems).</p>	<p>After studying the computer program the level of stigma in the group significantly decreased (7.3 vs. 5.7, <math>p &lt; 0.02</math>). The knowledge scores of the students also significantly improved according to psychiatric stigma knowledge questionnaire (10.9 vs. 22.1, <math>p &lt; 0.001</math>). The knowledge questionnaire had good psychometric properties with Cronbach alpha 0.77.</p>	<p>JHNEBP Level I A: A clearly focused question was stated; an appropriate design was applied and a sample was allocated into a control and study group. The data collection was clearly stated. The results were precisely and clearly presented. No long-term f/u s/p intervention. The sample size was moderate and all participants were medical students.</p>
5	Michaels, et al., 2014	<p><b>Setting:</b> people with mental illness &amp; mental health providers</p> <p><b>Sample:</b> N= 127 (mental illness) and N= 131 (mental health providers)</p>	<p><b>Intervention:</b> facilitated discussion; Two experienced facilitators administered 3-hour ASP (Anti-Stigma Project) workshop. Contact/Education.</p> <p><b>Control Group:</b> Control condition participants attended either "Steps to a Healthier You" (people with mental illness only) or "Sleep and YouTube" (providers only) for 3-hours.</p> <p><b>Follow-up:</b> pre- posttest no additional f/u required.</p>	<p>ASP increased awareness of systemic stigma for both people with mental illness and providers. Stigmatizing attitudes were also lowered for people with mental illness and providers; ASP raised awareness, improved affirming attitudes, decreased stigma, and fostered a sense of personal recovery.</p>	<p>JHNEBP level 1A: his study didn't discuss how the pre-posttest were accomplished, didn't discuss blinding;</p>
6	Papish, et al., 2013	<p><b>Setting:</b> multimodal undergraduate psychiatry course at the University of Calgary, Canada</p> <p><b>Sample:</b> N=179 (111 participated in baseline survey)</p> <p><b>Design:</b> cluster-randomized trial design</p>	<p><b>Intervention:</b> one-time contact-based educational intervention Psychiatry curriculum</p> <p><b>Control group:</b> psychiatry curriculum only with late intervention. Attitudes toward mental illness were compared to Type 2 Diabetes</p> <p><b>Follow-up:</b> 3 months</p>	<p>Analysis at four time points. Scores were lowest (least stigma) immediately following the psychiatry course. Analysis restricted to students (n=90) that completed the baseline (T1) and post-intervention (T2) surveys&gt; No evidence of change between T1 and T2 differed by group (<math>p=0.05</math>). *there were differences between the two groups despite randomization (<math>p= 0.02</math>) a model was created to adjust for baseline score, age, sex, career intention and group After this adjustment there was a statistically significant difference in the change scores</p>	<p>JHNEBP Level 1A: purpose, results and methods clearly defined. 62.0% response rate at baseline. 81.0% (n=90) second survey, 86.5% (n=96) third survey and 52.1% (n=50) 3-month follow-up survey (high attrition); despite randomization groups were statistically different and only after controlling for differences were there significant difference in change scores. Limitations discussed; Over well done</p>

				between the two groups between T1 and T2 ( $p = 0.03$ )	
7	Patten, et al., 2012	Setting: Canadian undergraduate pharmacy programs Sample: N=131 Design: RCT	Intervention: contact-based session; early Control: late contact based session Follow-up: pre/post survey	The results were pooled across the three study centers. A significant reduction in stigma was observed in association with the contact-based sessions (mean change 4.3 versus 1.5, $t=2.1$ , $p=0.04$ ). A similar reduction was seen in the control group when they later received the intervention. Contact-based education is an effective method of reducing stigma during pharmacy education. These results add to a growing literature confirming the effectiveness of contact-based strategies for stigma reduction in health profession trainees.	JHNEBP Level IA: confirmed that outcomes were homogeneous across study centers, center by group interaction, $p = 0.76$ . The effect size (Cohen's d) was 0.45. survey follow-up 62.1% response rate
8	Ritterfield & Jin, 2006	Setting: 165 Students at University of southern California. Design: The design of this study was 2 (advocate's point of view) X 3 (message style) between subject's factorial design whereby two factors are manipulated. A pre-test-post-test control group design was utilized with a follow up questionnaire 1 week post study.	Intervention: The Cuckoo's Nest format is designed to include a wide range of educational experiences: didactic, experiential (role play and guided imagery), and interactive. Control group: N/A Follow up: N/A	An independent samples t-test with attitude change as dependent variable and trailer vs control condition with no trailer as a grouping variable demonstrated stigma reduction ( $M = -0.15$ , $SD = 0.49$ ) only in the movie-plus trailer conditions as opposed to control group ( $M = 0.14$ , $SD = 0.59$ ), $t(159) = -2.43$ , $p = 0.016$ . The movie alone resulted in stigma increase as presented. Investigated more closely, pretreatment attitudes were identical in each condition. Hypothesis 5 predicted that the VAC will be more efficient for attitude change (stigma reduction) when presented after watching the movie than prior to watching it. Results of the independent samples t-test revealed significantly higher stigma reduction ( $M = -0.36$ , $SD = 0.30$ ) in the post movie condition compared to the prior-movie condition ( $M = -0.07$ , $SD = 0.30$ ), $t(37) = -3.02$ , $p = 0.005$ . Thus, hypothesis 5 was supported.	JHNEBP Level I A: A clearly focused question was stated; an appropriate design was applied and a sample was allocated into a control and study group. The data collection was clearly stated. The results were precisely and clearly presented. Follow-up was 1 week s/p test. Blinding was not done. The sample size was moderate and all were students were randomly selected.

9	Turner, et al., 2013	<u>Setting:</u> University of Southampton undergraduate; 48 University of Leeds undergraduates; testing occurred in individual cubicle. <u>Sample:</u> N=81	Experiment 1: focusing on central versus peripheral features of the nostalgia construct in Experiment 2 recalling a nostalgic versus ordinary autobiographical event in. <u>Follow up:</u> none one time interaction	Consistent with the hypothesis, nostalgic (M=73.26, SD= 17.00) relative to control (M = 64.66, SD = 15.31) participants held a more positive attitude toward the mentally ill, $F(1, 79) = 5.66, p = .02, d = 0.53$ . Experiment 2: participants held a more positive attitude towards persons with a mental illness, $F(1, 46) = 7.39, p = .009, d = 0.78$ . In particular, nostalgia contributed to reducing the stigma via two mechanisms: (i) an interpersonal process, increased social connectedness, which subsequently predicted (ii) intergroup processes, specifically, increased IOGS and outgroup trust.	JHNEBP Level 1A: no blinding discussed: A clearly focused question was stated; an appropriate design was applied. The data collection was clearly stated.
10	Wood & Wahl, 2006	Undergraduate participants (N= 114); <u>Design:</u> experimental w/control group	<u>Intervention:</u> In Our Own Voice (IOOV) national consumer based presentation. Mix of education (11min video) and contact (direct). <u>Control group:</u> control presentation about psychology careers. <u>Follow-up:</u> pretest & posttest no additional f/u	Results indicated that the IOOV group showed significant positive change across time, as well as significantly greater improvement than a control group in their knowledge and attitude scores on all measures. These findings support the effectiveness of the IOOV program (p. 46). NAMIs IOOV seems to be effective means of changing public stigma	JHNEBP Level 1A: purpose, results and methods clearly defined. No follow-up indication but future longitudinal studies are needed.

Article Number	Reference	Settings and sample size	Intervention	Results	Strength of Evidence
1	Bayar, et al., 2009	<b>Setting:</b> Turkey. <b>Sample:</b> N=205 psychiatrists and residents in a psychiatric ward. <b>Design:</b> RCT; cross-sectional survey	<b>Intervention:</b> Web-based mental disorder stigma education programme. <b>Control group:</b> Education that is not web-based. <b>Follow-up:</b> Not indicated (one time intervention).	Experimental group had significantly higher overall questionnaire scores (i.e., less stigmatizing attitudes) (median = 55, range = 39–63) than subjects from the control group (median = 50, range = 15–63) ( $p=0.0001$ ); internet may be a powerful outreach tool in disseminating anti-stigmatization	JHNEBP Level IB: A clearly focused question was stated. An appropriate design was applied and a sample was allocated into a control and study group. The data collection was clearly stated. The results were precisely and clearly presented. Follow-up was not done. Blinding was not done. Overall the study was well planned, executed and reported.
2	Jorm, Christensen, & Griffiths, 2006	<b>Setting:</b> 1995 survey sample of 2031 vs. a 2003–2004 survey involved of 3998 people aged 18 years or over. Beyondblue depression initiative survey results were analyzed and compared/contrasted between "high exposure" areas of the initiative vs. "low exposure" areas. <b>Design:</b> Random survey	<b>Intervention:</b> 2031 people given a vignette of a person with depression or of a person with early schizophrenia vs. a 2003–2004 survey involved 3998 people four vignettes: depression, depression with suicidal thoughts, early schizophrenia (included not the sole focus)	"High exposure" surveys reflect a greater awareness or openness about depression and sensitivity to the issue of discrimination. There was an increase in the belief that the person in the vignette would be discriminated against by others in the community. This change was largely confined to the high-exposure states.	JHNEBP Tool Level IB: Although the sample size for the questionnaire was large, the way that the sample was collected was not clear. The "high exposure" areas vs. "low exposure" areas were determined based on funding for the government's Beyond blue initiative, but no other criteria were present to separate the groups/responses.
3	Rusch, et al., 2008	<b>Setting:</b> University of Wisconsin-Milwaukee <b>Sample:</b> 43 undergraduate students (37 Completed). <b>Design:</b> Randomly assigned, crossover design	<b>Intervention:</b> Educational contact through IOOV (In our own voice) training and psychoeducation. <b>Control group:</b> psychoeducation Education video. <b>Follow up:</b> One day after exposure to IOOV and psychoeducation	IOOV was more effective than psychoeducation at reducing the stigma of bipolar disorder, unipolar depression, and mental illness in general. IOOV's impact on the stigma of bipolar disorder was quite clear, resulting in significantly decreased stigma compared to psychoeducation after the first set of presentations and, through the crossover design, reversal of these significant findings after the second set of presentations.	JHNEBP Level I B: A clearly focused question was stated; an appropriate design was applied and a sample was allocated into a control and study group. The data collection was clearly stated. The results were precisely and clearly presented. Follow-up was not done. Blinding was not done. The sample size was small and all were students who were enrolled in an Abnormal psychology course at the time of the study (potential for bias in results).

4	Friedrich, et al., 2013	<b>Setting:</b> Four medical schools in England <b>Sample:</b> N=1452 (intervention group n=1066; control group n=386). <b>Design:</b> Quasi-experimental; survey type	<b>Intervention:</b> Education not discrimination (END) Lecture and testimonies (education & contact). <b>Control Group:</b> No END intervention received normal medical school curriculum. <b>Follow-up:</b> immediate post course and 6 months	All measures improved in both groups, particularly among students with less knowledge and more stigmatizing attitudes and intended behavior at baseline. At immediate follow-up, the intervention group demonstrated significantly greater improvements in stigma-related knowledge and reductions in stigma-related attitudes and intended behavior, relative to the control group. At 6 months' follow-up, however, only one attitude item remained significantly better.	JHNEBP IIB: Control groups only available at two of four participating medical schools. At immediate follow-up, there was a 43% response rate; however, at 6-month follow-up only 10%. For feasibility, the CAMI (attitudes measurement) was shortened to three questions instead of the original scale, therefore reliability/validity not discussed. Discussed for all other measurement and determined valid with reliability of >0.71., however CAMI is specific to stigma, others knowledge, behavior and empathy
5	Evans-Lacko, et al., 2014	700 respondents were surveyed each year. Participant characteristics were similar across survey years; England	10-year trends in public attitudes across England before and during the Time to Change anti-stigma campaign.	Significant increases in positive attitudes related to prejudice and exclusion occurred after the Time to Change campaign. In the multivariable analysis, we noted a significant increase in positive attitudes in relation to prejudice and exclusion after the launch of Time to Change; e also found evidence for a dose-effect relation between campaign awareness and regional improvement in knowledge (p=0.004) and attitudes (tolerance and support p<0.0001; prejudice and exclusion p=0.001), but not intended behavior (p=0.20).	JHNEBP Level IIIA: Retrospective, secondary analysis.

<b>Table 7. Considerations when selecting an Anti-Stigma (stigma reduction) program</b>		
Key Considerations	R2MR	LINKS
Evidence based approach	<ol style="list-style-type: none"> <li>1. contact-based education (i.e., positive contact with a person with lived experience of a mental illness) has been demonstrated in the research literature as one of the most effective ways to reduce stigma (Corrigan &amp; Fong, 2014; Corrigan et al., 2012).</li> <li>2. The “Big 4” skills (goal setting, positive self-talk, visualization/mental rehearsal, and diaphragmatic breathing), used independently and in concert, have been demonstrated to help one deal with adverse situations, reduce stress, and increase performance (e.g., Barwood et al., 2006; Hatsigeorgiadis et al., 2004; Mento et al., 1987; Paul et al., 2007; Taylor et al., 1998).</li> <li>3. The Mental Health Continuum Model helps reconceptualize how people think about mental health and mental illness, from a healthy/ill dichotomy to a gradient. This type of conceptualization has been associated with more positive perceptions of mental illnesses (Schomerus et al., 2013, 2016).</li> <li>4. NATO Research Task Group (NATO/RTG) Mental Health Training technical report/white paper on benefits of mental health training programs</li> </ol>	1. Not as much evidence based, however consists of both contact and education based methods.
Defined objectives	<ol style="list-style-type: none"> <li>1. reduce the stigma of mental illness</li> <li>2. increase the resiliency (participant’s perceptions of how well they can handle or are equipped to handle stressors)</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce mental health stigma</li> <li>2. Provide mental health education</li> <li>3. Provide mental health awareness</li> </ol>
Time	4, 6, and 8 hour options	1 and 2-hour training options
Tools	Senior Leadership guide, mental health continuum, R2MR aide handout	
Target audiences	Multiple options to include 8 different levels (Basic trainees: officer and enlisted; junior and intermediate leaders, general professional development, senior leaders, and tactical/combat ops)	Army: Leaders module and soldier module
Outcomes	reducing stigma and increasing resiliency, as well as being informative, relevant, and useful	Reduce mental health stigma Reduce barriers to care
CONS	Canadian Armed forces created, would need to adapt to US Armed Forces	Not as much evidence base, Army centric
Pros	Optimal evidence and full detailed program, utilization of Mental Health Continuum for utilization in self-assessment, training guide format provided	training guide format provided Nice Acronym: Look for signs, increase awareness, neutralize barriers, know your role, Support help seeking

## APPENDICES

### *Appendix: CITI certificates*

#### COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM) COURSEWORK TRANSCRIPT REPORT\*\*

\* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Tekia Jones (ID: 4983741)
- **Email:** tekia.jones@usuhs.edu
- **Institution Affiliation:** Uniformed Services University of The Health Sciences (ID: 395)
- **Institution Unit:** GSN
- **Phone:** 253-202-3617
  
- **Curriculum Group:** OUSD P&R Human Research (Current)
- **Course Learner Group:** Social and Behavioral Investigators and Research Study Team
- **Stage:** Stage 1 - Social and Behavioral In
  
- **Report ID:** 16957097
- **Completion Date:** 09/13/2015
- **Expiration Date:** 09/12/2018
- **Minimum Passing:** 80
- **Reported Score\*:** 96

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED
Belmont Report and CITI Course Introduction (ID: 1127)	08/29/15
Defining Research with Human Subjects - SBE (ID: 491)	09/10/15
Basic Institutional Review Board (IRB) Regulations and Review Process (ID: 2)	09/11/15
Assessing Risk - SBE (ID: 503)	09/11/15
History and Ethical Principles - SBE (ID: 490)	09/11/15
The Federal Regulations - SBE (ID: 502)	09/11/15
Informed Consent - SBE (ID: 504)	09/11/15
Privacy and Confidentiality - SBE (ID: 505)	09/11/15
Records-Based Research (ID: 5)	09/11/15
Research with Children - SBE (ID: 507)	09/13/15
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	09/13/15
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	09/13/15
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	09/13/15
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	09/13/15
Office of the Under Secretary of Defense (Personnel and Readiness) (ID: 912)	09/13/15
Module for Non-DoD Personnel Conducting Research Involving Human Subjects Supported by the DoD (ID: 16769)	09/13/15
Research with Prisoners - SBE (ID: 506)	09/11/15

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)**  
**COURSEWORK TRANSCRIPT REPORT\*\***

\*\* NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Tekia Jones (ID: 4983741)
- **Email:** [tekia.jones@usuhs.edu](mailto:tekia.jones@usuhs.edu)
- **Institution Affiliation:** Uniformed Services University of The Health Sciences (ID: 395)
- **Institution Unit:** GSN
- **Phone:** 253-202-3617
  
- **Curriculum Group:** OUSD P&R Human Research (Current)
- **Course Learner Group:** Social and Behavioral Investigators and Research Study Team
- **Stage:** Stage 1 - Social and Behavioral In
  
- **Report ID:** 16957097
- **Report Date:** 09/13/2015
- **Current Score\*\*:** 96

**REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES**

**MOST RECENT**

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT
History and Ethical Principles - SBE (ID: 490)	09/11/15
Defining Research with Human Subjects - SBE (ID: 491)	09/10/15
Belmont Report and CITI Course Introduction (ID: 1127)	08/29/15
Records-Based Research (ID: 5)	09/11/15
The Federal Regulations - SBE (ID: 502)	09/11/15
Assessing Risk - SBE (ID: 503)	09/11/15
Informed Consent - SBE (ID: 504)	09/11/15
Privacy and Confidentiality - SBE (ID: 505)	09/11/15
Research with Prisoners - SBE (ID: 506)	09/11/15
Research with Children - SBE (ID: 507)	09/13/15
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	09/13/15
Internet-Based Research - SBE (ID: 510)	09/10/15
Office of the Under Secretary of Defense (Personnel and Readiness) (ID: 912)	09/13/15
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	09/13/15
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	09/13/15
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	09/13/15
Basic Institutional Review Board (IRB) Regulations and Review Process (ID: 2)	09/11/15
Module for Non-DoD Personnel Conducting Research Involving Human Subjects Supported by the DoD (ID: 16769)	09/13/15

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

CITI Program  
 Email: [citisupport@miami.edu](mailto:citisupport@miami.edu)  
 Phone: 305-243-7970  
 Web: <https://www.citiprogram.org>

**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)**  
**COMPLETION REPORT - PART 1 OF 2**  
**COURSEWORK REQUIREMENTS\***

\* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Brent Burhite (ID: 5004839)
- **Institution Affiliation:** Uniformed Services University of The Health Sciences (ID: 395)
- **Institution Email:** brent.burhite@usuhs.edu
- **Institution Unit:** Graduate School of Nursing
- **Phone:** 7027383138
  
- **Curriculum Group:** OUSD P&R Human Research (Current)
- **Course Learner Group:** Social and Behavioral Investigators and Research Study Team
- **Stage:** Stage 1 - Social and Behavioral In
  
- **Record ID:** 17037673
- **Completion Date:** 30-Aug-2015
- **Expiration Date:** 29-Aug-2018
- **Minimum Passing:** 80
- **Reported Score\*:** 81

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Belmont Report and CITI Course Introduction (ID: 1127)	27-Aug-2015	3/3 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	30-Aug-2015	4/5 (80%)
Basic Institutional Review Board (IRB) Regulations and Review Process (ID: 2)	30-Aug-2015	5/5 (100%)
Assessing Risk - SBE (ID: 503)	30-Aug-2015	4/5 (80%)
History and Ethical Principles - SBE (ID: 490)	30-Aug-2015	4/5 (80%)
The Federal Regulations - SBE (ID: 502)	30-Aug-2015	4/5 (80%)
Informed Consent - SBE (ID: 504)	30-Aug-2015	4/5 (80%)
Privacy and Confidentiality - SBE (ID: 505)	30-Aug-2015	5/5 (100%)
Records-Based Research (ID: 5)	30-Aug-2015	3/3 (100%)
Research with Children - SBE (ID: 507)	30-Aug-2015	4/5 (80%)
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	30-Aug-2015	4/5 (80%)
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	30-Aug-2015	4/5 (80%)
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	30-Aug-2015	3/3 (100%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	30-Aug-2015	4/5 (80%)
Office of the Under Secretary of Defense (Personnel and Readiness) (ID: 912)	30-Aug-2015	No Quiz
Module for Non-DoD Personnel Conducting Research Involving Human Subjects Supported by the DoD (ID: 16769)	30-Aug-2015	No Quiz
Internet-Based Research - SBE (ID: 510)	30-Aug-2015	1/5 (20%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: [www.citiprogram.org/verify/?kcb67775a-eadb-48c3-bfc6-5c400e31848a-17037673](http://www.citiprogram.org/verify/?kcb67775a-eadb-48c3-bfc6-5c400e31848a-17037673)

Collaborative Institutional Training Initiative (CITI Program)

Email: [support@citiprogram.org](mailto:support@citiprogram.org)

Phone: 888-529-5929

Web: <https://www.citiprogram.org>

**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)**  
**COMPLETION REPORT - PART 2 OF 2**  
**COURSEWORK TRANSCRIPT\*\***

\*\* NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Brent Burhite (ID: 5004839)
- **Institution Affiliation:** Uniformed Services University of The Health Sciences (ID: 395)
- **Institution Email:** brent.burhite@usuhs.edu
- **Institution Unit:** Graduate School of Nursing
- **Phone:** 7027383138
  
- **Curriculum Group:** OUSD P&R Human Research (Current)
- **Course Learner Group:** Social and Behavioral Investigators and Research Study Team
- **Stage:** Stage 1 - Social and Behavioral In
  
- **Record ID:** 17037673
- **Report Date:** 28-Sep-2017
- **Current Score\*\*:** 81

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT SCORE	
History and Ethical Principles - SBE (ID: 490)	30-Aug-2015	4/5 (80%)
Defining Research with Human Subjects - SBE (ID: 491)	30-Aug-2015	4/5 (80%)
Belmont Report and CITI Course Introduction (ID: 1127)	27-Aug-2015	3/3 (100%)
Records-Based Research (ID: 5)	30-Aug-2015	3/3 (100%)
The Federal Regulations - SBE (ID: 502)	30-Aug-2015	4/5 (80%)
Assessing Risk - SBE (ID: 503)	30-Aug-2015	4/5 (80%)
Informed Consent - SBE (ID: 504)	30-Aug-2015	4/5 (80%)
Privacy and Confidentiality - SBE (ID: 505)	30-Aug-2015	5/5 (100%)
Research with Children - SBE (ID: 507)	30-Aug-2015	4/5 (80%)
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	30-Aug-2015	4/5 (80%)
Internet-Based Research - SBE (ID: 510)	30-Aug-2015	1/5 (20%)
Office of the Under Secretary of Defense (Personnel and Readiness) (ID: 912)	30-Aug-2015	No Quiz
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	30-Aug-2015	4/5 (80%)
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	30-Aug-2015	4/5 (80%)
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	30-Aug-2015	3/3 (100%)
Basic Institutional Review Board (IRB) Regulations and Review Process (ID: 2)	30-Aug-2015	5/5 (100%)
Module for Non-DoD Personnel Conducting Research Involving Human Subjects Supported by the DoD (ID: 16789)	30-Aug-2015	No Quiz

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: [www.citiprogram.org/verify/?kcb67775a-eadb-48c3-bfc6-5c400e31848a-17037673](http://www.citiprogram.org/verify/?kcb67775a-eadb-48c3-bfc6-5c400e31848a-17037673)

Collaborative Institutional Training Initiative (CITI Program)

Email: [support@citiprogram.org](mailto:support@citiprogram.org)

Phone: 888-529-5929

Web: <https://www.citiprogram.org>

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*Appendix B: USU (VPR) Form 3202N (final copy from Office of VPR)*

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**OFFICE OF RESEARCH**  
4301 JONES BRIDGE ROAD  
BETHESDA, MARYLAND 20814  
PHONE: (301) 295-3303; FAX: (301) 295-6771

**NOTICE OF PROJECT APPROVAL**

Change Number: Original

**VPR Site Number:** T0-GSN-61-9396-01  
**Principal Investigator:** Jones, Tekia (GSN-61)  
**Department:** Graduate School of Nursing  
**Project Type:** Student  
**Project Title:** Mental Health Stigma Reduction: Pilot the LINKS Anti-stigma Program  
**Project Period:** 11/3/2017 to 11/2/2018

**Assurance and Progress Report Information:**

<u>Name</u>	<u>Sup</u>	<u>Approval Type</u>	<u>Status</u>	<u>Approved On</u>	<u>Forms Received</u>
Progress Report	0			To be Submitted	N/A

**Remarks:**

This Notice of Project Approval has been reviewed and approved. Please remember that you must submit a final Progress Report (Form 3210) upon completion of this project.

Questions regarding this approval should be directed to the following person in the Office of Research:  
Ronda Dudley, (301) 295-9818.

Yvonne T. Maddox, Ph.D. Date  
Vice President for Research  
Uniformed Services University of the Health Sciences

cc: Jones, Tekia (GSN-61)  
Vernell Shaw  
File  
Linda Wanzer

**USUHS FORM 3202N  
DANIEL K. INOUE GRADUATE SCHOOL OF NURSING  
EVIDENCE-BASED PRACTICE/PERFORMANCE IMPROVEMENT PROPOSAL**

VPR Date Stamp

Project Number: T0619396 (VPR will assign)

Project Title: Mental Health Stigma Reduction: Pilot the LINKS Anti-stigma Program

SECTION A: STUDENT/POC INFORMATION	
1. Name (Last, First, MI): <u>Jones, Tekia L</u>	Student E-mail: <u>TEKIA.JONES@USUHS.EDU</u>
2. Home Address: <u>[REDACTED]</u>	

SECTION B: CHAIR/SENIOR MENTOR INFORMATION	
3. Name (Last, First, MI): <u>Combs, Teresa</u>	
4. Telephone: <u>301-295-1169</u> Fax: _____	E-mail: <u>teresa.combs@usuhs.edu</u>
5. USUHS Building/ Room No.: <u>Bldg E, Rm# 1057</u>	

SECTION C: PROJECT INFORMATION	
6. Attach the Abstract for the proposal, including the following sections: Site Location of the Project, Title, Authors, Background or Problem/Issue, Clinical Question/Purpose, Project Design, Anticipated Organizational Impact/Implications for Practice and also include the Proposed Timeline. Single space the abstract and use Times New Roman font, size 12.	
7. Is this proposal related to an active research project of the Chair/Senior Mentor identified in Section B? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, complete below; if no, proceed to Part 8. Project Number: _____ Project Title: _____ Project Start Date: _____ Project End Date: _____	
8. Anticipated period of performance: Project Start Date: <u>01/1/2017</u> Project End Date: <u>10/30/2017</u>	
9. Performance Site(s): <u>Travis AFB and Ft Hood</u>	
10. Does this project involve any classified information? (Contact the USUHS Security Office for guidance) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
11. Do you have a funding source for this project? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA If yes, specify the funding agency and the amount provided: <u>Jonas Scholar Program \$2500</u>	

**SECTION D: SIGNATURES**

The following signatures attest to the validity of the above information:

<u>[REDACTED]</u> Student (Project PI or Contact for the Group)	(Signature and Date) <u>18 Sep 2017</u>	<u>[REDACTED]</u> Chair/Senior Mentor	(Signature and Date) <u>18 Oct 17</u>
<u>[REDACTED]</u> Chair/Program Director	(Signature and Date) <u>13 Sep 2017</u>	<u>[REDACTED]</u> Chair/Program Director	(Signature and Date) <u>18 Oct 17</u>
<u>[REDACTED]</u> DNP Project Director or PhD Director	(Signature and Date) <u>18 Oct 2017</u>	<u>[REDACTED]</u> Associate Dean for Academic Affairs, GSN	(Signature and Date) <u>18 Oct 2017</u>
<u>[REDACTED]</u> Associate Dean for Research, GSN	(Signature and Date) <u>18 Oct 2017</u>	<u>[REDACTED]</u> Dean, DKI Graduate School of Nursing	(Signature and Date) <u>18 Oct 2017</u>

In light of the above signatures, the project is approved.

[REDACTED]  
USUHS Vice President for Research

\_\_\_\_\_  
Date



Appendix I: Daniel K. Inouye Graduate School of Nursing  
DNP Project Senior Mentor Approved Abstract/Impact Statement Form

**DOCTOR OF NURSING PRACTICE PROJECT**  
**Senior Mentor Approved Abstract/Impact Statement Form**

**PROPOSAL ABSTRACT/IMPACT STATEMENT OUTLINE**

*Travis Air Force Base, California and Fort Hood, Texas*

**DNP Project Title:** Mental Health Stigma Reduction: Piloting the LINKS Antistigma Program

**Authors:** Burhite, B.H., Henderson-Young, S.S., Jones, T.L.

**Background or Problem/Issue:** Mental illness can impact anyone regardless of background, and 43.6 million or 18.1 percent of adults in the United States (U.S.) have some form of mental health (MH) disorder. 40 to 60 percent of military members could benefit from treatment but do not seek help. MH stigma serves as a barrier to help-seeking behavior, negatively impacting treatment with a potential for increased risks including distress, lowered resilience, and suicide. Stigma is empirically linked to coping, self-esteem, attitudes toward treatment-seeking, and intentions to seek treatment. Also, theoretically stigma is associated with well-being, quality of life, productivity, treatment initiation, and treatment success, programs that reduce stigma have great potential to improve mental health outcome.

**Clinical Question or Purpose:** The purpose of this project was to determine whether the LINKS antistigma program reduces mental health stigma in an adult population. In an adult population, how does an evidence-based anti-stigma program affect mental health stigma immediately post intervention, at one month, and at three months?

**Project Design:** A multi-site pilot of the LINKS evidenced-based antistigma program, with pre- and post-intervention evaluations to measure outcomes and determine whether the intervention is relevant and effective in the target population. Additional post-assessments will be accomplished at one and three months to determine sustainability. Target audience includes middle managers (O-1 thru O-3 and E-5 thru E-6) of the active duty population at both Travis Air Force Base and Fort Hood.

**Analysis of the Results:** The expected project results include a significant reduction in mental health stigma (military stigma scale) and improved mental health literacy (knowledge assessment).

**Organizational Impact/Implications for Practice:** The LINKS program promotes help-seeking behavior and psychological wellness through stigma reduction, improved resiliency, and early symptom recognition, all of which have potential to positively impact the Military Health System (MHS) Quadruple Aim and service-specific resiliency programs.

**APPROVED:**

Dr. Teresa Combs

Dr. Jouhayna Bajjani Gebara  
Senior Mentor (*type name*)

(*Signature*)

July 17  
(*Date*)

*Form Version: 4 Sept 2016*



Appendix I: Daniel K. Inouye Graduate School of Nursing  
 Abstract/Impact Statement Form - **EXAMPLES**

**Timeline**

**DNP Project Title: Mental Health Stigma Reduction: Piloting the LINKS Antistigma Program**

Project Year 2 (2017)													
Activity/Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
USUHS VPR Submission and Approval							X						
Site IRB Submission and Approval							X	X					
Project Planning	X	X	X	X	X	X							
Project Implementation/Data Collection									X	X			
Data Analysis										X	X	X	
Dissemination												X	

Project Year 2 (2018)													
Activity/Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
USUHS VPR Submission and Approval													
Site IRB Submission and Approval													
Project Planning													
Project Implementation/Data Collection													
Data Analysis													
Dissemination	X	X	X	X									

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*Appendix C: MTF IRB/PI Letter of Determination*

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DEPARTMENT OF THE AIR FORCE  
60TH MEDICAL GROUP (AMC)



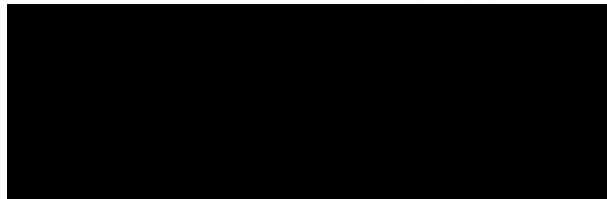
MEMORANDUM FOR 60MDG/SGSE

FROM: 60 MDG/SGSE

SUBJECT: Exempt Research Determination and Approval Notice

1. A Proposal for an Exempt research study **FDG20170034E** entitled, "**Mental Health Stigma Reduction: Piloting the LINKS Anti-Stigma Program**" was submitted to the Clinical Investigation Facility (CIF). The Principal Investigator of this proposed research is **Maj Tekia L. Jones**.
2. As a designated Exempt Determination Official (EDO), under authority granted by the DGMC Institutional Official, I have determined that this human subject research is eligible for exemption under **Category 2 [32 CFR 219.101(b) (2)]** in that the research procedures **ONLY** involve educational tests, survey or interview procedures, or observation of public behavior. This data is non-identifiable either directly, indirectly, or by a coding procedure linked to the subject's identity. Disclosure poses no risk of criminal or civil liability, or will not be damaging to subjects' financial standing, employability or reputation.
3. As a result of this determination, your proposal was approved on 11 Dec 2017, and is **EXEMPT** from Institutional Review Board (IRB) oversight. The IRB will be notified of this determination. However, please note that any changes to this study may affect the exempt status of your research and must be reviewed by an EDO. IAW AFI 40-402, all investigators engaged in human subject research, whether exempt or not, must have a current human protections training certificate on file with the CIF. The investigator must provide an annual update to the CIF on all research activities associated with this study.
4. If you have any concerns, please contact the CIF Protocol Office at 423-7400, or me at 423-7280. Good luck on your new research endeavor!

12/12/2017



Laurie Migliore, Lt. Col, USAF, NC  
Exempt Determination Official

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*Appendix D: PAO Clearance/Level of Dissemination Classification*

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DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 60TH AIR MOBILITY WING (AMC)



13 April 2018

MEMORANDUM FOR MAJ TEKIA JONES/MAJ BRENT BURHITE

SUBJECT: Approval of Submission

1. On 10 April 2018, the Clinical Investigation Facility Publications Monitor received clearance/approval for your poster and abstract submission titled: "**Mental Health Stigma Reduction: Piloting the LINKS Anti-Stigma Program**"
2. Please contact our office if your submission is published and provide a printed version for our records. Also, please contact our office if you receive any awards for your submission.
3. If you have any questions, I can be reached at 707-423-7316 / DSN 799 or e-mail at [eileen.m.foster4.civ@mail.mil](mailto:eileen.m.foster4.civ@mail.mil).

EILEEN M. FOSTER, CIV, DAF  
Gifts and Grants Technician

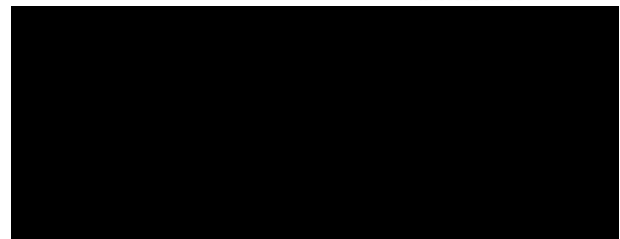
1<sup>st</sup> Ind, 60 AMW/PA

MEMORANDUM FOR MAJ TEKIA JONES/MAJ BRENT BURHITE

PA Security and Policy Review was conducted LAW 35-102 and there were not any issues.

Approved/~~Disapproved~~-for publication.

4/13/2018



TERMINI NON EXISTENT ... *THERE ARE NO BOUNDS*



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 60TH AIR MOBILITY WING (AMC)



30 April 2018

MEMORANDUM FOR MAJ TEKIA JONES/MAJ BRENT BURHITE

SUBJECT: Approval of Submission

1. On 10 April 2018, the Clinical Investigation Facility Publications Monitor received clearance/approval for your slides/paper submission titled: "**Mental Health Stigma Reduction: Piloting the LINKS Anti-Stigma Program**"
2. Please contact our office if your submission is published and provide a printed version for our records. Also, please contact our office if you receive any awards for your submission.
3. If you have any questions, I can be reached at 707-423-7316 / DSN 799 or e-mail at [eileen.m.foster4.civ@mail.mil](mailto:eileen.m.foster4.civ@mail.mil).

EILEEN M. FOSTER, CIV, DAF  
Gifts and Grants Technician

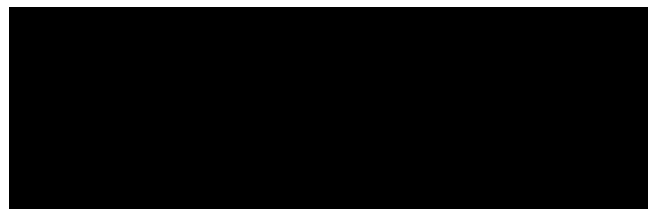
1<sup>st</sup> Ind, 60 AMW/PA

MEMORANDUM FOR MAJ TEKIA JONES/MAJ BRENT BURHITE

PA Security and Policy Review was conducted LAW 35-102 and there were not any issues.

Approved/~~Disapproved~~ for publication.

4/30/2018



TERMINI NON EXISTENT ... *THERE ARE NO BOUNDS*

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*Appendix E: All Blank Data Collection Forms*

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**Informed Consent Statement:**

**- You are invited to participate in a research project consisting of the LINKS 1-hour educational training program concerning mental health stigma and creating a unit climate supportive of help-seeking. This research project is investigating the impact of a mental health contact and educational program on mental health stigma. At the start and completion of the course you are asked to complete a pre and post survey, each survey will take approximately 10 minutes to complete. Participation is voluntary, and responses will be kept anonymous to the degree permitted by the technology being used. Participation will take no longer than 1.5 hours (60-minutes for training, 10-minutes each survey; one pre training and one post training).**

**- This research project is purely educational in nature, and not intended to diagnose or treat mental illness. If you are currently experiencing mental health challenges/concerns, have feelings of wanting to hurt yourself or someone else, and/or you need assistance at any time during this training please notify a facilitator for referral to appropriate resources.**

**- All responses are anonymous, but you have the option to not respond to any questions that you choose. Participation or nonparticipation will not impact your relationship with facilitators or David Grant Medical Center. Submission of the survey will be interpreted as your informed consent to participate and that you affirm that you are at least 18 years of age, active and either enlisted ranks E-5 to E-6 or officer ranks of O-1 to O-3. Survey will measure mental health stigma both pre- and post-training.**

**- If you have any questions about the research, please contact the Principal Investigator, Maj Tekia Jones, via email at [tekia.l.jones.mil@mail.mil](mailto:tekia.l.jones.mil@mail.mil) or the faculty advisor Dr. (Maj) Mary Kelley at [mary.c.kelley2.mil@mail.mil](mailto:mary.c.kelley2.mil@mail.mil). If you have any questions regarding your rights as a research subject, contact the DGMC Institutional Review Board (IRB) at (707) 423-7400.**

Date:

Pre Survey: Participant ID code:

Please answer the following demographic information:

1. What is your Age (in years)?
2. What is your Gender?  Female  Male
4. What is your marital status?  Single  Married  Divorce/Separated or Other:
5. If someone close to you at work has had a mental health challenge/mental illness, have you been involved in providing support for this person?  Yes  No  Not applicable
6. If yes to question 5, how would you rate the experience of providing support?  
 Positive  Negative  Neutral
7. What is your current AFSC/MOS description i.e. 3P0XX-Security Forces, 4A0XX-Health Services Management/Medical Admin, 46NX-Clinical Nurse, 44FX-Family Physician, 42PX-Clinical Social Worker, etc.

## Pre Survey: Participant ID code:

**INSTRUCTIONS:** Please choose the response that best matches how much you agree or disagree with each statement. There are no right or wrong answers. Circle the number that is right for you. This questionnaire is anonymous so do not make any identifiable marks. Although some of the items may look alike, no question is repeated.

**DEFINITION:** A *mental health provider* is a licensed professional who deals with psychological problems or issues that people sometimes have (e.g. psychologist, psychiatrist, licensed counselor, social worker). *Psychological problems* are reasons a person would go to a mental health provider. Similar terms include *mental health issues*, *psychological issues*, *mental troubles*, *mental health concerns*, and *emotional problems*.

Please use the 4-point scale to rate the degree to which agree or disagree with each statement by circling your response.

	1 = Definitely Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4 = Definitely Agree
1. My self-confidence would be harmed if I got help from a mental health provider.	1	2	3	4
2. I would be given less responsibility, if chain of command knew I was seeing a mental health provider.	1	2	3	4
3. If my chain of command discovered I was seeing a mental health provider, I would NOT lose their respect.	1	2	3	4
4. People would judge me poorly if they knew that I received mental health services.	1	2	3	4
5. I would worry about my personal problems being part of my military records.	1	2	3	4
6. People I respect would think less of me if they knew I had mental health problems.	1	2	3	4
7. My view of myself would change if I made the choice to see a therapist.	1	2	3	4
8. My chances of promotion would be harmed if I sought mental health services.	1	2	3	4
9. I would feel okay about myself if I made the choice to seek professional help.	1	2	3	4
10. I am open to seeking services, but I worry about how it could hurt my career.	1	2	3	4
11. My reputation in my community would be harmed if people knew that I had seen a mental health provider.	1	2	3	4
12. I would be afraid that my peers would find out what I tell my mental health provider.	1	2	3	4
13. I would feel worse about myself if I could not solve my own problems.	1	2	3	4
14. It would make my problems worse if my peers knew I was seeing a mental health provider.	1	2	3	4
15. I would feel inadequate if I went to a therapist for psychological help.	1	2	3	4
16. Seeking psychological help would make me feel less intelligent.	1	2	3	4
17. My peers would think less of me if they knew I was getting help from a mental health provider.	1	2	3	4
18. If I went to a therapist, I would be less satisfied with myself.	1	2	3	4
19. I'd lose the respect of my subordinates if they found out I was receiving mental health care.	1	2	3	4
20. There are things I am afraid to talk about because of what others will think.	1	2	3	4
21. A person seeking mental health treatment is seen as weak.	1	2	3	4
22. It would make me feel inferior to ask a therapist for help.	1	2	3	4
23. I am afraid that my chain of command would find out what I told a mental health provider.	1	2	3	4
24. My peers would think I was unreliable if they knew I was receiving mental health treatment.	1	2	3	4
25. My self-confidence would NOT be threatened if I sought professional help.	1	2	3	4
26. My self-esteem would <u>increase</u> if I talked to a therapist.	1	2	3	4

*Thank you for completing this questionnaire!*

Date:

Post Survey: Participant ID code:

**INSTRUCTIONS:** Please choose the response that best matches how much you agree or disagree with each statement. There are no right or wrong answers. Circle the number that is right for you. This questionnaire is anonymous so do not make any identifiable marks. Although some of the items may look alike, no question is repeated.

**DEFINITION:** A *mental health provider* is a licensed professional who deals with psychological problems or issues that people sometimes have (e.g. psychologist, psychiatrist, licensed counselor, social worker). *Psychological problems* are reasons a person would go to a mental health provider. Similar terms include *mental health issues*, *psychological issues*, *mental troubles*, *mental health concerns*, and *emotional problems*.

Please use the 4-point scale to rate the degree to which agree or disagree with each statement by circling your response.

	1 = Definitely Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4 = Definitely Agree
1. My self-confidence would be harmed if I got help from a mental health provider.	1	2	3	4
2. I would be given less responsibility, if chain of command knew I was seeing a mental health provider.	1	2	3	4
3. If my chain of command discovered I was seeing a mental health provider, I would NOT lose their respect.	1	2	3	4
4. People would judge me poorly if they knew that I received mental health services.	1	2	3	4
5. I would worry about my personal problems being part of my military records.	1	2	3	4
6. People I respect would think less of me if they knew I had mental health problems.	1	2	3	4
7. My view of myself would change if I made the choice to see a therapist.	1	2	3	4
8. My chances of promotion would be harmed if I sought mental health services.	1	2	3	4
9. I would feel okay about myself if I made the choice to seek professional help.	1	2	3	4
10. I am open to seeking services, but I worry about how it could hurt my career.	1	2	3	4
11. My reputation in my community would be harmed if people knew that I had seen a mental health provider.	1	2	3	4
12. I would be afraid that my peers would find out what I tell my mental health provider.	1	2	3	4
13. I would feel worse about myself if I could not solve my own problems.	1	2	3	4
14. It would make my problems worse if my peers knew I was seeing a mental health provider.	1	2	3	4
15. I would feel inadequate if I went to a therapist for psychological help.	1	2	3	4
16. Seeking psychological help would make me feel less intelligent.	1	2	3	4
17. My peers would think less of me if they knew I was getting help from a mental health provider.	1	2	3	4
18. If I went to a therapist, I would be less satisfied with myself.	1	2	3	4
19. I'd lose the respect of my subordinates if they found out I was receiving mental health care.	1	2	3	4
20. There are things I am afraid to talk about because of what others will think.	1	2	3	4
21. A person seeking mental health treatment is seen as weak.	1	2	3	4
22. It would make me feel inferior to ask a therapist for help.	1	2	3	4
23. I am afraid that my chain of command would find out what I told a mental health provider.	1	2	3	4
24. My peers would think I was unreliable if they knew I was receiving mental health treatment.	1	2	3	4
25. My self-confidence would NOT be threatened if I sought professional help.	1	2	3	4
26. My self-esteem would <u>increase</u> if I talked to a therapist.	1	2	3	4

*Thank you for completing this questionnaire!*

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*Appendix F: DNP Project Completion Verification Form*

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**Appendix J:** Daniel K. Inouye Graduate School of Nursing  
DNP Project Completion Verification Form

**DOCTOR OF NURSING PRACTICE PROJECT  
Completion Verification Form**

The DNP Project titled: *Mental Health Stigma Reduction: Piloting the LINKS Anti-Stigma Program* was completed at *David Grand Medical Center, Travis AFB, CA* by the following student(s):

<i>(type student name)</i>	<i>(signature)</i>	<i>(date)</i>
<u>Maj Tekia L. Jones</u>		<u>30 Apr 18</u>
<u>Maj Brent H. Burhite</u>		<u>30 Apr 18</u>

The DNP Practice Project Team verifies that the following components of the DNP project, accomplished by the above students, is of sufficient rigor and demonstrates doctoral level scholarship to meet the requirements for USUHS GSN graduation:

- Presentation of DNP project to the leadership/stakeholders at the Phase II Site,
- Abstract/Impact Statement (*Appendix F*), and
- DNP Project written report.

Verified by:

<i>(type name)</i>	<i>(signature)</i>	<i>(date)</i>	
<u>Dr Teresa Combs</u>		<u>30 Apr 18</u>	Senior Mentor
<u>Dr Jouhayna Bajjani-Gebara</u>		<u>30 Apr 18</u>	Team Mentor
<u>Maj (Dr.) Mary Kelley</u>		<u>30 Apr 18</u>	Team Mentor & Phase II Site Director