PSYCHOLOGICAL STRESS INJURIES IN PUBLIC SAFETY PERSONNEL:

A QUALITY IMPROVEMENT INITIATIVE

by

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GLOSSARY

Term	Definition
Burnout	Associated with feelings of helplessness, exhaustion, and irritability related to occupational settings (Stamm, 2010) Lack of agency, unfairness, low social support, and high work-load (Heber et al., 2023) 4/3/2025 8:17:00 PM
Compassion fatigue	Concerns two elements, 1) exhaustion, frustration, anger, or depression, which is sometimes referred to as burnout, and 2) secondary traumatic stress (Stamm, 2010)
Compassion satisfaction	The pleasure or satisfaction you find while doing work well (Stamm, 2010)
Occupational/organizational stress injury	Psychological stress relating to occupational stressors such as lack of resources or appropriate staffing, inconsistent leadership, and perceived lack of support (Heber et al., 2023)
Operational stress injury (OSI)	A term to describe mental health problems (sub-clinical and diagnosable disorders) that result from performing job duties (Heber et al., 2023)
Post-traumatic stress injury (PTSI)	A non-clinical term relating to mental health conditions experienced after one or more traumatic events (Heber et al., 2023)
Potentially traumatic events (PTEs)	Events with the potential to cause trauma-related mental health conditions are experienced directly, witnessed, learned about happening to close family member/friend, and includes morally injurious events - context of the individual and environment influence if the event is traumatic or not (Heber et al., 2023)
Public safety personnel (PSP)	Refers to law enforcement, corrections officers, firefighters, emergency medical services, and sometimes military and search and rescue personnel
Secondary traumatic stress	Work-related exposure to people experiencing traumatic events, which can present with symptoms similar to acute stress or PTSD such as difficulty sleeping, intrusive images, and avoidance behaviors (Stamm, 2010)
Resilience	The ability to bounce back and recover from stressful events (Smith et al., 2008)
Stigma (related to mental health)	Beliefs about mental illness as an undesirable characteristic that can be discrediting to an individual (Kobau et al., 2010)

ABSTRACT

Public safety personnel experience disproportionately high rates of anxiety, depression, and suicide, with U.S. law enforcement officers facing a suicide rate 54% higher than that of the general population (Violanti & Steege, 2021). In Montana, where limited resources and stigma impede mental health care, the suicide rate ranks among the nation's highest at 29.3 per 100,000—nearly double the national average (National Center for Injury Prevention and Control (U.S.)Division of Violence Prevention, 2018). In response to these challenges, a quality improvement (QI) initiative was launched in a moderately sized police department located in a city with a population of approximately 75,000 in the Northwestern United States to enhance the agency's existing wellness program. The QI initiative includes a pilot program that offers interventions for early detection, education, and a structure for ongoing organizational support - areas known to improve mental health outcomes for public safety personnel (PSP). For early detection, the pilot introduced a self-awareness screening tool, the Professional Quality of Life (ProQOL) questionnaire. Education was provided through a four-hour psychological stress awareness training, covering topics such as the pilot program's background, stress physiology, decision-making strategies, and the Stress First Aid (SFA) curriculum. Quality improvement was assessed through participation rates and survey results. The short-term goals of the pilot project were met, with intervention participation rates and role diversity exceeding expectations. These results indicated promising feasibility for expanding the pilot program agency-wide while operating within the agency's constraints, goals, and available resources. Furthermore, ongoing agency support can leverage the Replicating Effective Programs (REP) QI framework and the self-assessment tool to develop strategies for tracking long-term mental health and well-being goals.

CHAPTER ONE

REVIEW OF THE LITERATURE

In service of their communities, public safety personnel enter high-stress occupations and regularly expose themselves to potentially traumatizing events. Despite the risks inherent in these professions, systems of care are surprisingly limited. Though many who enter these volatile work environments do so with robust resilience skills, they are largely on their own when mitigating the known psychological harms endemic to this work. The results can be fatal. According to a multiple-agency analysis conducted by Carson et al. (2023) using the National Violent Death Reporting System, first responders comprise 1% of total suicides in the United States. For police officers, the rate is 54% higher than that of suicides in the general public (Violanti & Steege, 2021). Despite abundant empirical evidence of public safety personnel's (PSP) susceptibility to debilitating mental health conditions, current practices largely ignore occupational stress injuries caused by prolonged exposure to stressful work environments (Di Nota et al., 2021). Public safety personnel suffer from high rates of anxiety, depression, post-traumatic stress (PTSD), substance use disorders (SUD), and suicide caused or exacerbated by occupational exposure to potentially traumatizing events (Di Nota et al., 2021; Heber et al., 2023). This scoping review reports on occupational resource strategies to determine which are most effective in addressing public safety personnel (PSP) mental health.

Background and Significance

Compare occupational structures for protecting and mitigating mental health to the work-related physical injury protection standards. Employers provide abundant resources, such as

oxygen masks for firefighters and self-defense training for police officers, as well as extensive physical training and workers' compensation after an injury. There is a lack of evidence-based methods to track the impact of mental health wellness programs (Copple et al., 2019). While there has been a growing trend to address psychological stress in the workplace, especially after the COVID-19 pandemic, best practices in the literature for system-wide care are limited (Fisher & Lavender, 2023). The most common and least effective programs focus on improving individuals' mental health outside the work environment, such as directives to sleep more and eat well, deferring to individual responsibility rather than organizational support (Di Nota et al., 2021; Modula et al., 2024). Notably absent from many public safety work environments is a system-wide integration of individual well-being initiatives and organizational resources to mitigate adverse mental health impacts of traumatic events (Modula et al., 2024).

Similar to other forms of preventive healthcare, early detection of psychological stress injury formation is essential to maintaining healthy PSPs and their occupational longevity. This is especially true for conditions such as PTSD, a condition infamously complex to treat with poor prognoses, with an estimated cost of treating a PSP in the US of $10,000 per year, compared to $2,000 for those without PTSD (Di Nota et al., 2021). However, as the body of research on best practices for mental health care grows (Convoy et al., 2024; Di Nota et al., 2021; Fallon et al., 2023a), so does the opportunity for the PSP community to improve.

Pathophysiology

Neuroscience has demonstrated that chronic and acute psychological stress are physical injuries with real consequences. Under stress, our autonomic nervous system modulates the response with the sympathetic "fight or flight" response and the parasympathetic, returning us to

a resting state to recover and prepare for future stressors. When the sympathetic nervous system is continually stimulated due to chronic stress or when the overwhelm is severe, epinephrine and cortisol continue to flood the system, impeding the recovery process. Behavior changes attributable to a protective response to trauma do not signal psychopathology but rather a normal reaction to an abnormal situation (Center for Substance Abuse Treatment (US), 2014).

Most people who experience trauma will return to their previous baseline without intervention, while others will demonstrate subclinical symptoms. Stress reactions can impact several functional domains in a person's life, including emotional, physical, cognitive, behavioral, and social (Center for Substance Abuse Treatment (US), 2014). Our current understanding of the trauma response involves the hippocampus, amygdala, and medial prefrontal cortex, with neurotransmitter-related dysregulation, primarily cortisol and norepinephrine (Bremner, 2006). The disruption between these brain reactions is thought to explain the immediate and delayed response to trauma. Common emotional responses after trauma are anger, anxiety, sadness, difficulty concentrating, and shame, which often resolve on their own. People employ adaptive and maladaptive strategies to control these symptoms. Examples of destructive or maladaptive coping mechanisms to regulate emotions are substance use, engaging in high-risk activities, overworking, and numbing (detaching from thoughts and memories) (Center for Substance Abuse Treatment (US), 2014). After trauma, the brain networks become primed to respond should another event happen; this is hyperarousal, which manifests with sleep disturbances, high startle response, and muscle tension (Center for Substance Abuse Treatment (US), 2014).

The long-term impacts of stress can affect the entire body. Chronic stress releases epinephrine, noradrenaline, and cortisol, which affect the cardiovascular system by sustaining an increased heart rate and vascular tone, causing hypertension and cardiovascular disease (McCance & Huether, 2019). Cortisol plays a vital role in upregulating inflammatory responses, which is protective in the short term but can lead to immune disorders, pathological bone fractures, diabetes, central adiposity/obesity, and depression in the long term. The amygdala stores memory non-linearly, and under extreme stress, associations are made between sensations (e.g., smell, sight, and sound) and the traumatic event, causing flashbacks and predisposing people to be triggered by those sensations linked to the original trauma. Research is also making strides in understanding the protective measures that can mitigate stress reactions, including gaining a sense of safety, social support, and hope, which will be discussed in the following chapters as they relate to proposed interventions (Hobfoll et al., 2021).

Definition of Terms

A complete list of terms can be found in the Glossary; however, further explanation is needed to understand the scoping review synthesis and clinical practice implications for the quality improvement project. Beginning with the population of interest, public safety personnel (PSP) refers to law enforcement, correctional officers, firefighters, emergency medical services, and sometimes military personnel. Each of these occupations has a high prevalence of exposure to traumatic events (Corthésy-Blondin et al., 2022; Wagner et al., 2024). Some potentially traumatic events (PTEs) are listed in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR) for the diagnosis of acute stress disorder and PTSD (American Psychiatric Association, 2022; Heber et al., 2023). These include adverse childhood

experiences, motor vehicle accidents, sexual assault, other violence, unexpected violent or accidental death of a loved one, and the threat or actual severe physical injury experienced during military combat, natural disasters, or exposure to human remains (American Psychiatric Association, 2022). Potentially traumatic events are not limited to those listed in the DSM-5-TR to also include PSP's experiences of moral injury, perceptions of helplessness, and lack of social support during or after the event (Heber et al., 2023).

New terminologies are emerging to address trauma-related conditions as understanding their physical and psychological impacts evolves (Carleton et al., 2018; Government of Canada, 2002). For example, occupational stress injury (OSI) and post-traumatic stress injury (PTSI) describe prolonged or acute stress, resulting in predictable physiological adaptations (e.g., increased cortisol) to manage that stress (Government of Canada, 2002; Heber et al., 2023). Physiological responses to trauma and chronic stress can lead to conditions such as bone fractures, central adiposity, hypertension, heart disease, and other subclinical manifestations (McCance & Huether, 2019). Psychological reactions to stress exist on a continuum from subclinical anxiety or behavioral changes, such as irritability, to more severe reactions like depression, panic attacks, suicidal ideation, and post-traumatic stress disorder (PTSD) (Antony et al., 2020; Di Nota et al., 2021). Occupational or organizational stress injury (OSI) relates to organizational pressures such as insufficient breaks, interpersonal conflict, and the sense of being unsupported by supervisors (Heber et al., 2023). Post-traumatic stress injury (PTSI) refers specifically to mental health conditions experienced after exposure to one or more traumatic events (Heber et al., 2023).

Burnout is a term often used to describe attributes of OSI and PTSI, yet it is also used casually without a clear definition. The Canadian Institute for Public Safety Research and Treatment further defines burnout as being caused by workplace stress related to organizational pressures such as insufficient breaks, interpersonal conflict, and the sense of being unsupported by supervisors (Heber et al., 2023). Burnout manifests as emotional exhaustion, depersonalization, and diminished personal achievement (Di Nota et al., 2021). Burnout is also referred to as "compassion fatigue," which has two contributing factors: work-related trauma (e.g., OSI) and secondary traumatic stress (e.g., PTSI) (Stamm, 2010). Therefore, the term "stress injury" will be used in this manuscript when talking about both OSI and PTSI collectively rather than compassion fatigue or burnout.

Once these definitions and terms were parsed for their accuracy and applicability to the population of interest, the search used public safety personnel, potentially traumatic events, and occupational stress as guiding terms. Other teams, such as secondary trauma, were also searched to ensure the breadth of the topic was captured. However, due to their specificity, the earlier terms were given preference during the search and inclusion matrix.

Methods

Search Strategy

A literature search was conducted using ProQuest, MEDLINE, PsycINFO, CINAHL, and Web of Science databases between 2019 and 2024. The focus of the literature review was initially limited to meta-analyses, systematic reviews, and scoping reviews published in English. The eligibility requirements were extended to include primary and narrative studies to maximize phenomenological understanding. Keywords guiding the search included psychological stress,

occupational stress, secondary trauma, traumatic stress, posttraumatic stress disorder, potentially traumatic events, burnout, public safety personnel, law enforcement, and first responders.

Inclusion Criteria

A total of 202 articles were identified, and after reviewing the inclusion and exclusion criteria, 16 articles were selected for analysis. The scoping review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (see Figure A1). The defining characteristics of the final articles were summarized in an evidence matrix using location, population, phenomenon, study design, relevant outcome measures, interventions, results, and implications. The dominant themes were then drawn out to assess intervention strategies, their strengths and weaknesses, and practice implications as a whole.

Results

Themes and Implications

Due to the differing terms for PSP and psychological stress injuries, comparing literature across the population and phenomena of interest was difficult. The search began by looking for organizational strategies for improving PSP mental health. When no common system-level approaches to improving mental health were identified in the literature, a compilation of programs and interventions was assessed to determine commonalities among the various techniques. When looking at the literature's main findings, three themes emerged as feasible occupational interventions: 1) education, 2) early detection, 3) peer support, 4) critical incident management, and 5) ancillary mental health professional support (e.g., therapists). Public safety personnel (PSP) was the dominant categorical term used in the literature to discuss law

enforcement, firefighters, emergency medical service workers, and corrections officers (Anderson et al., 2020; Bahji et al., 2022; Di Nota et al., 2021; Ellis & Korman, 2022; Miller & Unruh, 2019; Shields et al., 2021). A few studies also included nurses, physicians, and military personnel under the umbrella term of PSPs (Anderson et al., 2020; Convoy et al., 2024; Di Nota et al., 2021; Fallon et al., 2023a). The studies primarily focused on the United States (US), the United Kingdom, and Canada, with Canada having the most robust body of literature on psychological stress and its interventions.

The authors in the scoping review reported on different aspects of mental health, using various measures and focusing on varying degrees of symptomatology. For instance, several systematic and scoping reviews measured diagnostic criteria for mental health disorders, while others concentrated on preclinical symptoms. These variables were applied to several types of interventions. However, the common interventions focused on peer support, suicide prevention, critical incident stress management (CISM), professional psychological interventions, and education. The clinical implications of these themes were analyzed based on the feasibility of using evidence-based interventions.

Education. Training programs for PSPs are protective against PTSI formation (Di Nota et al., 2021). Yet, the content of the documented training programs varies considerably, with significant gaps in the research regarding the efficacy of any particular model (Di Nota et al., 2021). Education is more effective with a mix of psychoeducation and prevention/coping skills, requiring periodic refreshers due to the deterioration of learned skills (Di Nota et al., 2021; Khanna et al., 2019; Modula et al., 2024). First responders typically come into the occupation with high-stress tolerance and continue to adapt to critical incident exposure and secondary

trauma, often leading to decreased sensitivity to the signs and symptoms of stress injury (Ellis & Korman, 2022). Several systematic reviews identified self-appraisal skills as helpful in early recognition and support-seeking behaviors (Anderson et al., 2020; Antony et al., 2020; Di Nota et al., 2021; Ellis & Korman, 2022; Fallon et al., 2023a; Fisher & Lavender, 2023; Greinacher et al., 2019; Khanna et al., 2019; Modula et al., 2024; Richards et al., 2021). Furthermore, law enforcement and firefighting agencies frequently establish programs that provide ancillary professional counseling and other supportive interventions (Fisher & Lavender, 2023). Yet, the program information is often not disseminated to staff, necessitating strategies to bridge the knowledge gap between staff and the available resources (Richards et al., 2021).

Early Detection. Early identification and intervention of psychological stress symptoms can lead to better long-term mental health outcomes (Di Nota et al., 2021). Education and peer support have a role in early detection and are discussed separately. Several of the systematic and scoping reviews used additional strategies, such as screening tools and distress-tracking (Antony et al., 2020; Di Nota et al., 2021; Ellis & Korman, 2022; Greinacher et al., 2019; Khanna et al., 2019; Miller & Unruh, 2019; Shields et al., 2021). Consideration should be made about the length of the tool, outcome measures, and the available resources once the results are known as they relate to organizational needs (Shields et al., 2021). Validated screening tools are available to assess common mental health disorders in PSP populations, such as anxiety, depression, panic, PTSD, and substance use (Di Nota et al., 2021; Ellis & Korman, 2022; Greinacher et al., 2019; Shields et al., 2021; Smirnova et al., 2022). The most common measurements were the Generalized Anxiety Disorder Scale (GAD-7), PTSD Checklist, Professional Quality of Life (ProQOL) scale, and Perceived Cohesion Scale (PCS). Organizations in the literature review

have prioritized screening for suicide risk and instituting suicide prevention programs (Antony et al., 2020; Di Nota et al., 2021; Ellis & Korman, 2022). Several studies found screening for mental health disorders less effective than more upstream interventions, such as peer support and education (Antony et al., 2020; Fisher & Lavender, 2023).

Peer Support. Eleven of the 16 studies consider social support a key element in resilience and mitigating psychological stress injury. Team cohesion is a protective factor for stress injuries (Ellis & Korman, 2022; Fallon et al., 2023a; Miller & Unruh, 2019; Smirnova et al., 2022). Peer support programs are becoming common among PSP teams and are an effective way to build team cohesion (Fallon et al., 2023a; Fisher & Lavender, 2023; Greinacher et al., 2019; Miller & Unruh, 2019; Modula et al., 2024; Richards et al., 2021; Smirnova et al., 2022). The structure of peer support programs varies, but most are oriented around crisis intervention, non-hierarchical support from people with shared experiences, and a focus on recovery (Fallon et al., 2023a). Peer programs decrease stigma, provide a bridge to professional mental health practitioners, and improve mental health literacy; however, confidentiality concerns remain a considerable barrier to the success of peer support programs (Fallon et al., 2023a; Fisher & Lavender, 2023; Miller & Unruh, 2019). Organizationally, peer support programs must be actively championed by trusted leadership, well-funded, and established in official policy, or they risk languishing unused (Fisher & Lavender, 2023; Miller & Unruh, 2019; Modula et al., 2024).

Critical Incident Stress Management (CISM). Critical incident stress management approaches are controversial within the PSP community, as they have had mixed empirical and anecdotal results (Alshahrani et al., 2022; Anderson et al., 2020; Ellis & Korman, 2022; Fisher & Lavender, 2023). Initially, CISM was a reactionary strategy with mandatory debriefs led by

untrained leadership, which were typically held within a day or two of incidents (Alshahrani et al., 2022; Anderson et al., 2020). This model was deemed ineffective or potentially harmful, but modern CISM protocols are improving (Anderson et al., 2020). Current models include pre-incident planning and voluntary debriefing and are led by trained facilitators (Anderson et al., 2020; Miller & Unruh, 2019). Still, due to the inconsistency of CISM implementation, there is insufficient evidence to understand the efficacy of crisis intervention programs (Alshahrani et al., 2022; Anderson et al., 2020; Di Nota et al., 2021; Ellis & Korman, 2022; Fisher & Lavender, 2023).

Therapy. Cognitive behavioral therapy (CBT), eye movement desensitization and reprocessing (EMDR) therapy, and exposure therapy can all improve PTSD symptoms (Alshahrani et al., 2022). Yet, clinical help is often sought after a person has significant symptoms of stress injury impacting both their personal and professional lives (Bahji et al., 2022). Providing clinicians as a resource for PSP is becoming standard practice in many Employee Assistance Programs (EAPs) (Fisher & Lavender, 2023). A crucial part of professional support is engaging specialized clinicians familiar with the occupational stressors unique to first responders (Fisher & Lavender, 2023). Providing options can mitigate the stigma, mistrust, and perception of psychological services that influence PSP's willingness to seek help (Richards et al., 2021). Most importantly, building a supportive culture that integrates education, self-awareness, and decreased stigma are the prerequisites to PSPs seeking professional help (Anderson et al., 2020; Bahji et al., 2022; Di Nota et al., 2021; Fisher & Lavender, 2023; Greinacher et al., 2019; Khanna et al., 2019; Miller & Unruh, 2019; Modula et al., 2024; Richards et al., 2021).

Discussion

One of the dominant themes was that organizational differences (e.g., financial resources and workplace culture) limit the feasibility of a one-size-fits-all model to address mental health (Di Nota et al., 2021). However, certain commonalities can guide an organization's program strategy. Common threads in the literature include education, early detection, peer support, critical incident management, and ancillary mental health professional support. However, all interventions risk failing if attention is not paid to barriers in PSP culture, such as stigma (Anderson et al., 2020; Fallon et al., 2023a; Fisher & Lavender, 2023; Miller & Unruh, 2019; Modula et al., 2024; Richards et al., 2021). Education centered around self-assessment and stress injury recognition also helps to reduce stigma by creating a shared language (Antony et al., 2020; Convoy et al., 2024; Ellis & Korman, 2022; Fisher & Lavender, 2023; Khanna et al., 2019; Miller & Unruh, 2019). Early detection of mental health concerns can be accomplished through education, peer support, and the use of screening tools (Antony et al., 2020; Convoy et al., 2024; Ellis & Korman, 2022; Fisher & Lavender, 2023; Khanna et al., 2019; Modula et al., 2024). Peer support is a highly feasible and accepted method to mitigate stress injuries within a team as long as trust and confidentiality are addressed in policy and actions (Modula et al., 2024; Richards et al., 2021). Critical incident stress management is problematic due to the questionable results in the literature (Anderson et al., 2020). The availability of professional mental health clinicians is an effective intervention when the clinician understands the stressors of PSPs and there are several therapy methods available (Alshahrani et al., 2022; Bahji et al., 2022). Finally, the majority of the literature notes that a multi-modal approach is necessary in addressing the complexity of mental health for PSPs.

CHAPTER TWO

QUALITY IMPROVEMENT PROPOSAL

The gap between known adverse mental health outcomes for public safety personnel (PSP) and organizational interventions is profound, as evidenced by the high rates of anxiety, depression, PTSD, substance use, and suicide (Di Nota et al., 2021; Heber et al., 2023; Modula et al., 2024). These groups face high and chronic risks of psychological stress injuries due to high-stress work environments (Bahji et al., 2022). Due to the nascent understanding of psychological trauma, multi-dimensional mitigation strategies have only recently emerged (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). This research-to-practice gap is widespread among first responders and healthcare organizations. By implementing stress injury awareness education and initiating a self-appraisal screening tool, this quality improvement initiative is the first step to achieving the host agency's goal of creating a well-functioning mental health support system and closing the gap between research and practice.

Problem & Aim Statement

Challenges compound in rural states with scarce mental health services. Montana has an estimated one mental health provider for every 5,000 residents (Beck et al., n.d.). In 2014, law enforcement accounted for 2% of suicide deaths in Montana yet constituted only 0.3% of the workforce (Montana Department of Labor and Industry, 2024 & Montana Department of Public Health and Human Services [MT DPHHS], 2014). Many law enforcement officers experience unrecognized and unaddressed psychological stress from secondary trauma exposure and occupational stress. A moderately sized police department in Montana seeks to understand the

impact of stress injury and develop a comprehensive approach to educating PSPs. The department has instituted several disparate mental health programs, yet participation is low, and officer well-being remains a concern. Law enforcement agencies often have available resources that are underutilized due to barriers such as stigma, concerns about confidentiality, and a lack of self-awareness regarding stress injuries (Daniel & Treece, 2021).

This initiative aims to implement a mental health training program coupled with a self-appraisal questionnaire to build officer self-awareness, establish shared language regarding psychological stress injuries, and track changes in well-being. This training aims to improve officer well-being by decreasing common barriers preventing law enforcement from seeking help, such as a lack of self-awareness, stigma, and difficulty navigating resources (Fisher & Lavender, 2023). The PICOT (population, intervention, comparison, outcome, and time) question posed here is: among law enforcement officers in Montana, does psychological stress injury education and self-assessment tracking improve the professional quality of life and provide value to the pilot participants?

Quality Improvement Framework

The social-ecological model informs the proposed intervention (see Figure A3). This layered model delineates the influences of individual, social, and cultural factors on behavior (McLeroy et al., 1988). The individual level includes a person's knowledge, attitudes, and skills. On the interpersonal level, behaviors are influenced by family, friends, and social networks, while the institutional level consists of organizational influences, such as workplaces, schools, and religious institutions. The community and public policy domains involve laws, regulations, access, and other systemic factors. Each domain nests within the larger system, accounting for

complex behavior influences and providing a model to understand where specific interventions are potentially most effective.

Based on this social-ecological conception, the Replicating Effective Programs (REP) framework for improvement will be utilized. This framework helps organizations bridge the gap between evidence-based research and healthcare delivery systems (Kilbourne et al., 2007). Intervention outcomes often differ between research and real-world organizational applications. The REP framework helps close the gap in intended outcomes by maintaining intervention fidelity while remaining flexible to local needs (Kilbourne et al., 2007). The model is comprised of four phases: (1) pre-conditions, (2) pre-implementation, (3) implementation, and (4) maintenance (Kilbourne et al., 2007). The host agency currently lacks any process to track existing program efficacy; utilizing the REP model will create a system to refine processes from which the host agency can continue to benefit. The REP framework is an effective process for developing a pilot (or prototype) package and testing feasibility within a community-based organization (Kilbourne et al., 2007).

Context

Organizations commonly implement mental health wellness programs only to find them underutilized. This is the case in the host agency, a Montana police department responding to over 30,000 service calls annually. Despite several existing mental health programs, engagement is low, and institutional support is dwindling. The host agency is aware its personnel are experiencing various mental health issues and acknowledges a need for improved systems and processes. Their core values include accountability for individual and organizational performance, commitment to quality, building community trust, and embracing diversity and

dignity. The 2022-2025 strategic plan consists of three objectives directly connected to officer well-being: 1) Demonstrate agency commitment to officer health and wellness by investing in officers and their families, 2) Foster an environment of ownership, accountability, and recognition for exemplary work among employees, and 3) Improve internal communications.

The host agency has a well-established Crisis Intervention Team (CIT) program with approximately 25 patrol officers and investigators trained in behavioral health emergency response. Existing mental health programs (see Table A1) include a Wellness Committee, Peer Support Team, Employee Assistance Program (EAP), Crisis Support Chaplain, wellness phone app, and access to "911 At Ease International" (a first responder call service). The host agency does not formally track participation in these programs. The four-member Wellness Committee was established in 2023 and sets agency goals and priorities. The Peer Support Team is staffed by patrol officers, investigators, and retired officers on a volunteer basis and meets monthly. This group's charge is to offer emotional support, provide referral information, and assist the Critical Incident Stress Management (CISM) Team. The Employee Assistance Program provides six professional counseling sessions for each incident (or issue) an officer faces and includes services for family members. Crisis Support Chaplains are clergy members trained to serve first responders, providing critical incident support and counseling, family crisis support, prayer and ceremony, new officer orientation, survivor notification, and community education. The 911 At Ease International program provides free and confidential counseling and referral services for first responders and their families. The host agency has subscribed to an online app that has offered education and screening tools since 2022. The subscription will not be renewed due to a

lack of engagement. The host agency stakeholders (see Figure A2) include patrol officers, detectives, training officers, division supervisors, and administrative supervisors.

Methods

Implementation Summary

The proposed study pilots an education program for psychological stress injury awareness, conducts a feasibility survey, and initiates a quality-of-life questionnaire. All host agency law enforcement staff will be invited to participate in the intervention, with 20 specifically recruited due to their previously demonstrated interest in mental health programs. The CIT Program Director (Licensed Clinical Social Worker), Peer Support Team Leader (Detective Corporal), and Training Supervisor (Sergeant) are among the host agency leaders who will attend the training. All participants will attend an evidence-based Stress First Aid (SFA) training in the first weeks of February 2025. The curriculum is an established program with clearly defined objectives and, with sufficient training, can be taught by multiple staff members for future continuity. Before the SFA training, participants will complete the Professional Quality of Life (ProQOL) questionnaire administered through the secure and confidential Qualtrics software. Anonymized ProQOL results will illuminate participants' baseline mental health. Finally, participants will complete a brief survey to evaluate the feasibility and acceptance after the SFA training (Appendix B).

Outcome measures include (1) the number of people who complete SFA training, (2) descriptive statistics and narrative results of the feasibility survey, (3) the number of participants who complete the ProQOL questionnaire, (4) descriptive statistics of the aggregate results of the

ProQOL. This pilot program represents the pre-implementation phase of the REP and will inform the host agency's ongoing mental health initiative with baseline data and insight on feasibility.

Intervention & Implementation

The proposed intervention administers mental health education and self-assessment questionnaires and collects baseline data to commence longitudinal evaluation. Specifically, the goals are to (1) establish a shared language about stress injuries to reduce stigma, (2) increase mental health self-awareness and track changes for early intervention, and (3) evaluate how well the educational component addresses participants' needs of the participants (see Figure A4).

SMART Goals. The specific, measurable, achievable, relevant, and time-bound (SMART) goals flow from the PICOT question. The Methods section outlines the full details of each goal (see Appendix B).

1. Provide Stress First Aid (SFA) training to a pilot group of at least five patrol officers, two supervisors, and one training officer prior to February 28, 2025.
2. Achieve a feasibility survey completion rate of at least 70% of the pilot training participants prior to February 28th, 2025.
3. Achieve a completion rate of at least 70% of participants' Professional Quality of Life (ProQOL) questionnaires prior to February 28th, 2025.
4. Document the itemized and aggregate ProQOL results as baseline data for ongoing program evaluation prior to March 7th, 2025.

Process. A needs assessment will be conducted to understand the greater context of the agency and what interventions would be feasible. During the recruitment phase in January 2025, project team leaders and department supervisors will use direct email solicitation to recruit

participants, clearly describing the pilot program's goals, expected time commitment, and educational content. Participants include a minimum of five patrol officers, two peer support leaders, and one training supervisor. If the threshold is not met initially, department supervisors will email individual officers directly for participation, clearly disclosing that participation is voluntary. These participants are identified as early adopters due to their dedication to mental health interventions and are likely to engage in the extra work necessary to complete the program (Kilbourne et al., 2007). Participants will be paid their standard wages for all hours spent in the training, including the time spent on the surveys and questionnaires.

The education intervention will commence in February 2025. The ProQOL questionnaire (see Figure C1) will be transcribed into Qualtrics to maintain anonymity and data security. The project lead emails a link for the questionnaire to the participants one week prior to the training and provides two email reminders before the training. Participants will complete the validated ProQOL questionnaire, which assesses compassion satisfaction (job satisfaction), burnout, and secondary trauma (Stamm, 2010). Next, the pilot group will participate in a four-hour SFA training facilitated by the project leader and the CIT Program Director. Upon completing the SFA training, participants are given the opportunity to provide feedback on their experience in the form of a survey (see Table C1) with seven, five-point Likert Scale questions and open-ended questions for narrative feedback on feasibility, intervention acceptance, and drawing out any potential problems in the pilot training for future refinement. Reminder emails will be sent until the participation goal is met or it's deemed unlikely to achieve a 70% completion goal.

Safety & Confidentiality

The relevant data for this initiative includes anonymous aggregated ProQOL results and a feasibility survey (Appendix C). Data is collected using Qualtrics software with no associated personal identifiable information (PII). The project lead programs Qualtrics with the questionnaire and survey questions and then emails a link to the participants. Due to the small sample size, no demographic information will be collected, risking confidentiality. All data is primary, containing no protected health information (PHI) and no external or secondary data regarding the participants is collected. The project lead exports non-PII information into a Microsoft Excel spreadsheet for analysis. This data is stored on the host agency's secure network and becomes the responsibility of the CIT Program Director.

Explicit language accompanies each survey with a consent form, stating that the survey is voluntary and that only aggregate results are reported so that the results cannot be identified with an individual. The ProQOL results and feasibility survey are administered separately to guarantee anonymity in a small sample size. Approval will be sought from the human resources department, leadership, the Institutional Review Board at Montana State University, and the participants before administering the survey and screening tool or training. Also, before the interventions, leadership provides policy protections from punitive or disciplinary action due to mental health concerns or participation. Mental health resource information is provided before the intervention should a participant decide to seek care based on the information learned during the intervention. The host agency has several resources available (e.g., EAP and 911 At Ease International) for staff who seek care with policies and confidentiality agreements already in place.

Data Collection Tools

ProQOL Questionnaire. The host agency has no existing system to measure the impact of its wellness programs, so instituting anonymous self-assessment screenings presents a significant change to existing processes. The Professional Quality of Life questionnaire (ProQOL) will fill this gap. The ProQOL assesses compassion satisfaction (job fulfillment), burnout, and secondary trauma in human service occupations (Stamm, 2010). Compassion satisfaction measures the positive attributes of work, while burnout and secondary trauma measure the negative characteristics of work stress. The negative characteristics are collectively referred to as compassion fatigue. The ProQOL is not a diagnostic test and cannot be used to categorize illness or pathology. However, the scores can guide self-appraisal and signal the need for appropriate mental health care. The scores can also be used collectively to reflect an organization's work engagement or burnout trends. The tool has been shown to have high construct validity and internal reliability (Stamm, 2010). The ProQOL is one of the most common research tools used for compassion fatigue and secondary trauma and is used here to promote standardized measurement tools (Stamm, 2010). The ProQOL has 30 questions and can be self-scored (see Figure C1). The Professional Quality of Life results are interpreted with various combinations of the compassion satisfaction and fatigue categories relating to their score. For instance, high compassion satisfaction, moderate burnout, and secondary traumatic stress cumulatively indicate a positive result (Stamm, 2010). Education will be provided to the participants on interpreting their results and what mental health resources are available to them. Using this ProQOL accomplishes two goals. First, it will enable the host agency to evaluate the efficacy of its existing programs over time (Stamm, 2010). Second, it will give officers direct insight into their

mental health and the potential to track it over time, enabling early intervention. Strict confidentiality will be maintained, essential to this intervention so that participants feel safe.

Stress Injury Awareness Training. The host agency already conducts several training sessions in which mental health is addressed annually and for new recruits. However, these training sessions are brief, and some, such as the Crisis Intervention Team training, are available only to a select group of officers. Therefore, a more widely accessible Stress First Aid (SFA) four-hour educational intervention is proposed. This intervention will build upon the current training content, offering a more robust psychoeducation module and increasing the number of officers receiving stress injury education. The National Center for PTSD and the Department of Veteran Affairs included the SFA curriculum as a prevention measure for mental illness (Convoy et al., 2024). The Department of Navy and Marine Corps developed the SFA framework for operational stress, and it has been adapted to several populations, such as healthcare workers and law enforcement (Convoy et al., 2024; Hermosilla et al., 2023; Westphal & Watson, 2021). Stress First Aid is a widely accepted educational method for improving recovery from stress reactions and uses language consistent with the host agency's existing CIT program Mental Health First Aid training. The evidence-based education model of Stress First Aid focuses on the causes of stress injuries, symptomology, and resilience skills, aligning with the intervention's aims (McLean et al., 2023; National Center for PTSD, n.d.). The Stress First Aid curriculum will establish a shared language about stress injuries, reduce stigma, enhance self-awareness of mental health, and emphasize the importance of early intervention (Westphal & Watson, 2021).

Evaluation & Analysis

Evaluation of the planned intervention parallels three of the four REP framework factors: 1) a qualitative evaluation of the implementation process, 2) fidelity or frequency measures, and 3) patient-level outcomes (the host agency represents the patient in this context) (Kilbourne et al., 2007). Completion rates for the feasibility surveys and ProQOL questionnaires will be calculated. Due to the small participant group, the feasibility and ProQOL questionnaires are administered separately to avoid risking confidentiality.

ProQOL Questionnaire. The ProQOL questionnaire is given anonymously before the self-awareness training intervention (see Figure C1). The critical measure of interest is the percentage of participants who complete the instrument. The instrument is scored according to the guidance of Stamm (2012) in the ProQOL manual. Participants are provided written instructions on evaluating their scores, which Qualtrics will provide upon completing the questionnaire. Participants are guided in interpreting their results and connecting to available mental health resources. Initiating the ProQOL is part of the process change initiated to illuminate potential changes in the mental health of agency staff over time. Descriptive statistics for the ProQOL are calculated to establish baseline measures of impact on staff mental health and establish a scaffolding for longitudinal analysis.

Stress Injury Awareness Training. The percentage of participants who complete the SFA training is assessed. The greater the proportion of staff trained in stress injuries, the sooner the host agency will reach the critical mass necessary to establish a common language. In accordance with the SFA guidelines, outcome measures include scores from a brief feasibility survey (see Table C1) completed at the end of the training (Westphal & Watson, 2021). Descriptive statistics for all Likert measures will be calculated, and the open-ended questions

will undergo content analysis to discern core narratives. These core narratives will be used to inform future training iterations.

Conclusion

Although bridging the gap between evidence-based mental health interventions and agency implementation is complex, this initiative establishes mental health training and self-appraisal tools as the first step in addressing system-level changes. These interventions align with the literature's critical components for improving mental health, which include education, social support, and early intervention. The REP framework guides this pilot program to test the feasibility of broader implementation of mental health interventions at a Montana-based police department. The initiative seeks to build self-awareness, reduce stigma, and improve help-seeking behaviors. The interventions also integrate well with the host agency’s strategic plan and core values, giving this wellness initiative the cultural context and buy-in to bring evidence-based mental health interventions into the organization.

CHAPTER THREE

QUALITY IMPROVEMENT MANUSCRIPT

Contribution of Authors and Co-Authors

Manuscript in Chapter 3

Author: Darcy Chenoweth BSN, RN, PMHNP Candidate

Contributions: Evaluation and analysis of clinical problem, literature review, project and intervention development, project implementation, data collection, analysis, and results dissemination.

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Contributions: Direct advising to the author regarding clinical problem evaluation, project development, and review of proposal, project, and final manuscript.

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Abstract

Public safety personnel experience disproportionately high rates of anxiety, depression, and suicide, with U.S. law enforcement officers facing a suicide rate 54% higher than that of the general population (Violanti & Steege, 2021). In Montana, where limited resources and stigma impede mental health care, the suicide rate ranks among the nation's highest at 29.3 per 100,000—nearly double the national average (National Center for Injury Prevention and Control (U.S.) Division of Violence Prevention, 2018). In response to these challenges, a quality improvement (QI) initiative was launched in a moderately sized police department located in a city with a population of approximately 75,000 in the Northwestern United States to enhance the agency's existing wellness program. The QI initiative includes a pilot program that offers interventions for early detection, education, and a structure for ongoing organizational support - areas known to improve mental health outcomes for public safety personnel (PSP). For early detection, the pilot introduced a self-awareness screening tool, the Professional Quality of Life (ProQOL) questionnaire. Education was provided through a four-hour psychological stress awareness training, covering topics such as the pilot program's background, stress physiology, decision-making strategies, and the Stress First Aid (SFA) curriculum. Quality improvement was assessed through participation rates and survey results. The short-term goals of the pilot project were met, with intervention participation rates and role diversity exceeding expectations. These results indicated promising feasibility for expanding the pilot program agency-wide while operating within the agency's constraints, goals, and available resources. Furthermore, ongoing agency support can leverage the Replicating Effective Programs (REP) QI framework and the

self-assessment tool to develop strategies for tracking long-term mental health and well-being goals.

Psychological Stress Injuries in Public Safety Personnel: A Quality Improvement Initiative

Public safety personnel experience high rates of anxiety, depression, post-traumatic stress disorder (PTSD), and substance use disorders (SUD), often caused or exacerbated by occupational exposure to potentially traumatizing events and workplace burdens (Department of Justice, 2023; Di Nota et al., 2021; Heber et al., 2023). Police officers in small or rural agencies (population less than 100,000) are exposed to an average of 188 critical incidents in their careers compared to the average citizen, who is exposed to approximately three traumatic events in their lifetime (Chopko et al., 2015; Kessler et al., 2017). Workplace burdens (e.g., occupational stress) and potentially traumatizing events are associated with mental health disorders in public safety personnel (Carleton et al., 2018). Despite rapid advances in scientific understanding of trauma exposure, rates of mental illness among public safety personnel continue to rise. For instance, it is now widely accepted that psychological stress is a physical injury with biological consequences (Center for Substance Abuse Treatment (US), 2014; Occupational Safety and Health Administration, n.d.). Behavior changes attributable to a protective response to trauma do not signal psychopathology but rather a normal reaction to an abnormal situation.

The impact of the national problem is seen acutely in rural areas like that of the pilot. Police officers die by suicide at a rate 54% higher than the general public (Violanti & Steege, 2021). For instance, in the rural state of Montana, law enforcement represented 2% of suicide deaths in 2014 while making up only 0.3% of the workforce (Montana Department of Labor and Industry,

2024 & Montana Department of Public Health and Human Services [MT DPHHS], 2014). Law enforcement agencies often have underutilized mental health resources; cultural barriers, such as stigma, confidentiality concerns, institutional mistrust, and lack of awareness, can render any intervention, no matter how well-meaning, ineffective (Anderson et al., 2020; Fallon et al., 2023b; Fisher & Lavender, 2023; Miller & Unruh, 2019; Modula et al., 2024; Richards et al., 2021). The local agency of interest has several mental health programs in place, yet they are also confronted with mental health program underutilization while mental health concerns continue among their staff.

Review of Literature

A literature search was conducted using the ProQuest, MEDLINE, PsycINFO, CINAHL, and Web of Science databases from 2019 to 2024. The focus of the literature review was initially limited to meta-analyses, systematic reviews, and scoping reviews, and it was later extended to include primary and narrative studies to maximize phenomenological understanding. The themes that emerged as feasible occupational interventions include 1) early detection, 2) education, 3) peer support, and 4) ongoing organizational support. Although peer support is a key element for team cohesion- demonstrated as a protective factor against stress injuries- the agency must first establish a shared language and address confidentiality concerns (Fallon et al., 2023; Fischer & Lavender, 2023; Miller & Unruh, 2019). Therefore, study findings for the remaining three mitigation strategies are reviewed to build the requisite foundations within the organization.

Routine self-assessment screening enhances early detection of mental health concerns before they progress to conditions with poor prognoses, such as PTSD (Antony et al., 2020; Di Nota et al., 2021; Ellis & Korman, 2022; Greinacher et al., 2019; Khanna et al., 2019; Miller &

Unruh, 2019; Shields et al., 2021). The validated Professional Quality of Life (ProQOL) screening tool is one of the most widely used self-assessment measurement tools among helping professionals, including law enforcement personnel and medical providers (Di Nota et al., 2021; Stamm, 2010). This 30-question instrument consists of three subcategories that assess compassion satisfaction (CS) (e.g., job satisfaction), burnout (BO), and secondary traumatic stress (STS) within the helping professions, including law enforcement. The ProQOL uses a Likert scale where 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = very often (Stamm, 2010). Unlike other instruments that require professional interpretation, the ProQOL is not a diagnostic test and cannot be used to categorize illness or pathology. However, ProQOL scores can guide self-appraisal and suggest the need for appropriate mental health care using the interpretive information provided by the tool's authors (Stamm, 2010). Social desirability bias is possible when taking the ProQOL because respondents may answer in ways they believe to be more acceptable to themselves or others. However, anonymity likely mitigates some of this bias (Ried et al., 2022).

Education can provide a sense of agency to address mental health challenges rather than merely identifying a problem, such as using a screening tool in isolation, as multiple interventions can complement the other's effects (Antony et al., 2020; Fisher & Lavender, 2023). Stress First Aid (SFA) is an evidence-based educational curriculum designed to mitigate occupational stress in high-stress work environments. The Department of the Navy and Marine Corps developed the SFA framework to address operational stress, adapting it for healthcare workers and law enforcement personnel (Convoy et al., 2024; Hermosilla et al., 2023; Westphal & Watson, 2021). The National Center for PTSD and the Department of Veterans Affairs

recognize SFA as a preventive measure against mental illness by fostering a shared language, reducing stigma, enhancing mental health self-awareness, fostering coworker support, and emphasizing the importance of early intervention (Convoy et al., 2024; Westphal & Watson, 2021). Interdepartmental collaboration for mental health interventions creates a shared language across the organization and facilitates resource sharing (Fisher & Lavender, 2023). Ultimately, much of the literature confirms that multimodal approaches are essential for addressing the complexities of mental health in PSPs, with trust and confidentiality being foundational to each intervention (Di Nota et al., 2021; Ellis & Korman, 2022; Department of Justice, 2023).

Conceptual Framework

This quality improvement initiative's guiding principles are rooted in two conceptual structures: a systems-level theoretical model and a quality improvement framework. Historically, mental health has been viewed as an individual's responsibility to manage; however, interventions focused on self-help have not significantly improved mental health outcomes for first responders (Di Nota et al., 2021; Modula et al., 2024). To address the complexities of health promotion and disease prevention, the social-ecological model functions at a systems level, recognizing various factors influencing health-seeking behavior, such as individual circumstances, interpersonal relationships, institutional dynamics, community elements, and public policy (McLeroy et al., 1988). Based on this model, the QI initiative positions psychological stress in the workplace as a shared responsibility among individuals, peers, and the institution.

To organize implementation and evaluate efficacy, this quality improvement process follows the Replicating Effective Programs (REP) framework, applying systematic, evidence-

based interventions to address specific community needs and is well suited to address barriers in complex local environments (Kilbourne et al., 2007). The model consists of four phases: (1) pre-conditions, (2) pre-implementation, (3) implementation, and (4) maintenance (Kilbourne et al., 2007). Our intervention focuses on the pre-implementation phase, specifically the potential contributions of a pilot program to help the host agency advance into the implementation phase. Currently, the host agency lacks a method for tracking the effectiveness of existing programs. Utilizing the REP model will create a system that streamlines processes, enabling the host agency to continue benefiting from the program's dissemination and maintenance phases.

Rationale and Aims

This initiative implements an evidence-based mental health training program and a self-assessment questionnaire to enhance officer self-awareness for early recognition of stress injuries, create a shared language, and establish a baseline to track well-being over time. To accomplish these goals, the pilot program seeks to demonstrate feasibility by assessing acceptance, identifying barriers, and refining strategies for broader dissemination. This represents the first step within the larger agency's effort to improve officer and agency staff well-being by reducing common barriers to seeking help, such as a lack of self-awareness, stigma, and difficulty navigating resources (Fisher & Lavender, 2023).

Methods

Context

The pilot program host agency was a semi-rural police department in the Intermountain West that responds to approximately 30,000 service calls annually. Current mental health

programs at this agency include a Wellness Committee, Peer Support Team, Employee Assistance Program (EAP), Crisis Support Chaplain, and access to "911 At Ease International" (a first responder call service). The agency's leadership acknowledges that personnel face various mental health challenges and recognizes the need for improved systems to encourage greater utilization and track participation in their established programs. Within the agency's strategic plan, two objectives link directly to this initiative: 1) Demonstrate agency commitment to officer health and wellness by investing in officers and their families, and 2) Improve internal communications. The host agency currently faces staff shortages and financial constraints, necessitating an effective intervention and a streamlined implementation process to prevent further depletion of scarce resources. This initiative aligns with agency goals, offers evidence-based interventions and a structured framework, and is designed to achieve its objectives within the agency's current constraints.

Intervention

The intervention was designed through a collaborative, iterative process following the REP framework. As part of the preconditions phase, a needs assessment was conducted, informed by a project recently completed by a group of university social work students and firsthand insights gathered from a series of individual stakeholder meetings. With support from a site representative, a stakeholder working group was established, including a supervisor (Captain), two training officers (Sergeants), two peer support members (Corporal and Officer), and an agency social worker to guide the process during the pre-implementation phase. Based on the needs assessment and a literature review, a range of options was presented to several members of the stakeholder working group. Through these exchanges, the pilot package of

interventions was refined, and a final draft package was submitted to agency leadership for approval. This pilot package included three interventions: a self-appraisal questionnaire, a four-hour training session on stress injury awareness, and a feasibility survey. The package received approval from the Internal Review Board at Montana State University as a quality improvement initiative and was classified as non-human subjects research.

During the recruitment phase, agency leadership invited all staff members to participate in the pilot program. Twenty individuals were identified as early adopters and specifically invited to join due to their demonstrated commitment to mental health initiatives, involvement in peer support, and representation of diverse roles and schedules (e.g., night shift vs. day shift). Staff members registered using Google Forms, and seven days before the training, they received an anonymous Qualtrics link to the ProQOL self-assessment screening tool. The questionnaire included a consent form with clear language stating that participation is voluntary and that results cannot be linked to an individual. The software provided participants with scores for each of the three subcategories. Score interpretations provided by the tool's authors were included at the end of the questionnaire. Furthermore, mental health resources were listed at the end of the screener for participants concerned about their results.

The four-hour training session included background information about the pilot program (such as using and implementing the ProQOL), stress injury physiology, decision-making resources, and an introduction to the Stress First Aid (SFA) curriculum. After completing the training, participants received an email with a link to an anonymous feasibility survey utilizing Qualtrics software. The feasibility survey comprised seven Likert scale questions (1 = strongly disagree to 5 = strongly agree), an optional open-ended question to explain each response, five

additional open-ended questions, and one rank-order question aimed at identifying specific educational content and dissemination considerations (see Table C1). The anonymous responses were analyzed and summarized for inclusion in the final agency report. During a concluding meeting at the end of the pre-implementation phase, an agency toolkit, executive summary, and recommendations were presented to the stakeholder working group, and strategies for agency-wide dissemination of the intervention were discussed.

Measures

The strategies for analyzing effective program replication included 1) frequency measures of training participation and survey completion rates and 2) qualitative assessments of the implementation process based on feedback from the stakeholder working group and the feasibility study results (Kilbourne et al., 2007). The pilot aimed for a 70% completion rate for the self-assessment questionnaire among training participants. The initial goal for training participation was to enlist at least five patrol officers, two supervisors, and one training officer. The objective was to achieve a 70% completion rate for the feasibility survey after the training concluded. A rank-order question rated the course content from 1 (the most important) to 5 (the least important). The qualitative results of the open-ended questions were provided to the host agency for future programmatic guidance. The ProQOL results were compiled as baseline data for future consideration in the REP process, allowing for the monitoring of trends and guiding structural support for staff well-being. Each of the three subcategories (CS, BO, and STS) is scored on a scale of 10 to 50 points, with results of 22 or less indicating low, 23 to 41 indicating moderate, and 42 or more indicating high for each category. The authors of the tool provide an interpretation of the scores that accompany the questionnaire (see Figure C1).

Given the small sample size, no demographic information was gathered from the questionnaire or the survey to protect participant confidentiality. All data is primary and does not include any protected health information (PHI); no external or secondary data regarding the participants was collected in the surveys.

Analysis

Frequency measures were analyzed by comparing project goals with participation and completion rates using descriptive statistics. Specifically, the percentages of questionnaire and survey participation, as well as the number of training participants, including their agency roles, were compiled. To qualitatively assess the implementation process, the stakeholder working group discussed both the positive and negative aspects of the process and potential barriers to participation. The feasibility survey was analyzed using mean Likert scores computed for each question, while open-ended questions were evaluated for core narratives. In addition to our focal assessments of the initiative's success, we analyzed participants' ProQOL scores to provide baseline information to the host agency. The aggregate scores in each subcategory were interpreted using the ProQOL author's low, moderate, or high-scoring system to assess the current overall state of the participant group (see Figure C1). The means and standard deviations of individual questions are provided in Table D2.

Results

Overall, we surpassed several of our primary implementation goals. We exceeded the training participation target, with 16 staff members attending, including three supervisors (one captain and two sergeants), one detective, six officers (including one training officer), and seven

administrators. Eighteen participants completed the ProQOL questionnaire, which included all 16 attendees of the training as well as others who could not attend. The feasibility survey was the only measure that did not meet the expected frequency, achieving a 62% completion rate. For analyzing participant feedback, the mean results from the feasibility survey Likert scale varied between 4.2 and 4.7 (leaning toward strongly agree) on all questions except for one regarding the appropriateness of the course length, which was rated 2.8 (just below neutral). The rank order of the training content, starting with the most important, was 1) psychological stress physiology, 2) decision-making resources, 3) SFA, and 4) pilot program background (see Table D3). The most notable core concepts identified in the open-answer questions indicated that the training length could have been extended to allow more time for examples and applied practice. Additionally, the material was considered most relevant to those participating in the peer support program, the inclusion of all agency roles was appreciated, and there could have been more examples regarding the impacts on civilian staff (administrators).

The supplemental ProQOL results provide a baseline and insight into the participants' current well-being. The combined mean score for CS is 35.8, which indicates a moderate level; a higher score reflects greater satisfaction derived from helping people in a work setting. The mean score for BO is 25.9, which is considered on the low end of moderate and serves as an indicator of risk for burnout. The mean score for STS is 26.5, also at the low end of moderate, indicating exposure to stressful events. The mean scores of each question were assessed for any outliers in each subcategory (see Table D1).

Discussion

This quality improvement project, introduced a self-assessment screening tool and provided education on psychological stress, demonstrated positive effects and strong potential for widespread adoption. Initial concerns included time scarcity, general resistance to conventional mental health training, and participants' skepticism regarding a program led by an outsider. High engagement in the pilot program emerged, partly due to the careful consideration of people's time, the support of a trusted host agency representative, and the commitment of specific staff members to mental health. Following the REP quality improvement framework, the interventions were thoughtfully integrated into the local agency culture to create a clear pathway for both the pilot program and the recommendations for future dissemination.

The ProQOL was selected as a validated, easily accessible self-assessment tool designed for individuals in the helping professions. One of its strengths lies in enabling individuals and organizations to identify their strengths (CS) and specific challenges (BO or STS) that may impact their mental health. The number of participants completing the ProQOL indicates a strong interest in self-reflection and a desire for insight into personal mental health. The high completion rate may also suggest a willingness to self-assess without risking confidentiality or facing potential judgments regarding fitness for duty. The number of participants in the training further illustrates a general openness to novel approaches to managing psychological stress in the work environment. The low completion rate of the feasibility survey may be due to time constraints, apathy (e.g., uncertainty about whether their feedback would lead to institutional changes), or other individual limitations.

The end-of-course feasibility survey helped assess acceptance, identify barriers, and refine dissemination strategies for the training curriculum. Participants in the pilot program

ranked the physiological content and types of stress as the most valuable because, as one participant noted, it provided "explanations as to why we as a team and I as an individual feel and act in a certain way." They also expressed interest in additional guidance on decision-making, such as how and when to assist a struggling colleague. The evidence-based SFA curriculum delivers this content, emphasizing symptomatology, self-awareness, and co-worker support (McLean et al., 2023; National Center for PTSD, n.d.). The feasibility survey results highlighted that while the ability to replicate training with fidelity is important, the instructor's delivery and interactive methods are crucial to ensure the content resonates. Making the training accessible to all levels of the agency hierarchy, including supervisors, officers, and administrators, presents challenges in tailoring the content to everyone's experiences. Interdepartmental psychoeducation can foster a shared language throughout the agency, potentially building trust and reducing stigma. One response indicated that the training "helped give the audience a sense of agency in improving the mental health of the department." Many participants supported providing the entire team with a foundational level of psychological stress awareness, along with specific in-depth training for groups such as the peer support team. Participants were less interested in the background of the pilot program itself and preferred more time to be spent on providing specific examples. Collectively, this illustrates that the agency staff is interested in this content and willing to engage despite their limited time capacity.

The ProQOL results provide both individuals and the agency with a baseline to identify specific strengths and challenges that impact psychological well-being over time. Overall, the agency has high mean scores for compassion satisfaction (CS), which offers a resilient foundation to build upon. Notably, the staff derives great satisfaction from helping others. In

contrast, burnout is associated with feeling unable to perform a job effectively. This is often where organizations can provide the most support, such as offering flexible shifts, ensuring adequate staffing levels, or minimizing unnecessary administrative burdens. The implication of the burnout (BO) mean score, which falls on the low end of moderate, is that more institutional support is necessary. Finally, the secondary traumatic stress (STS) score reflects how much individuals are affected by exposure to potentially traumatizing events. The low-moderate mean score suggests that individuals would benefit from additional tools and resources to process the stressful events they encounter in the line of duty.

Limitations

Due to the small sample size and the need to preserve anonymity and trust, demographic information was not collected during the ProQOL and feasibility survey. Responses could not be analyzed based on whether participants were street officers, supervisors, or in administrative roles; however, the ProQOL is designed as a self-assessment tool, so this does not necessarily undermine its intended application. Furthermore, the literature supports administering the SFA training to all staff, regardless of their roles, and the results were treated equally regarding the feasibility of the program moving forward for the agency.

The feasibility survey was scheduled to be emailed on the same day as the training; however, a technical issue delayed it by four days. This may have affected the number of respondents, as the task seemed more distant. Additionally, due to a small sample size, the individual feasibility survey responses might have a greater impact on guiding future implementation choices than they would have had if all participants had responded. During the training, technical difficulties with the PowerPoint presentation required engaging the

participants in dialogue, which allowed for the organic coverage of topics intended for discussion while presenting the SFA content later in the agenda. When the same content arose during the SFA curriculum, it was skimmed over, which could potentially influence participants' perception of the curriculum's importance.

Recommendations

The next step in the REP quality improvement process incorporates lessons from the pilot program into agency-wide implementation. By utilizing existing resources, it is recommended that the agency's Wellness Committee formalize the stakeholder working group and appoint a dedicated staff member as the project lead. The working group will assist the project lead in ongoing program evaluation and refinement (Kilbourne et al., 2007). Institutionalizing the program's structure demonstrates organizational support and fosters trust among staff members (Miller & Unrul, 2022). The REP implementation phase begins with training agency staff to promote awareness of stress injuries. The SFA curriculum includes formal training manuals and presentations, and its application to law enforcement personnel is supported by literature (Khanna et al., 2019). The feasibility survey underscored the need to balance a standardized curriculum for consistency and fidelity with dynamic instruction to address the specific needs of the participants. Training for all agency staff, with in-depth education delivered to specialized groups such as the peer support team, will create a common language and establish agency-wide self-awareness.

Distributing the ProQOL survey to staff annually will enhance self-awareness for the early recognition of issues such as burnout and compassion fatigue. Collecting demographic information (e.g., length of public service, gender, or agency role) can help guide organizational

investments, though maintaining anonymity and confidentiality will be critical. In addition, sustained organizational support for resources within the agency, including peer support, employee assistance programs, and 911 at Ease, along with clear protocols and access pathways, will improve resource utilization without fear of stigma or breaches of confidentiality (Fisher & Lavender, 2023). Establishing long-term expectations and intentionally developing the program will preserve its integrity and facilitate cultural shifts regarding mental health and well-being.

Conclusion

This pilot program demonstrated that implementing a self-awareness tool and providing stress injury awareness training within a local law enforcement agency is feasible on a larger scale. During the program, the ProQOL questionnaire achieved a high response rate, and participation in the training spanned various agency roles, including supervisors, training officers, street officers, and administrators. Barriers to participation were addressed by fostering trusted relationships within the agency and maintaining confidentiality. The agency has established programs, such as the wellness committee, which can provide ongoing oversight of program implementation, including the annual distribution of the ProQOL questionnaire, encouraging early recognition, and offering clear, confidential pathways to access mental health resources. The SFA training is an evidence-based curriculum that can serve as a foundational resource for developing mental health training. It is important, however, that the instruction remains dynamic and interactive, emphasizing the host agency's needs and culture. Additionally, psychoeducation on the physiology of stress and identifying types of stress are essential to the participants. This pilot program utilized evidence-based strategies to reduce stigma and promote a shared language regarding psychological stress injuries. It also established the REP quality

improvement framework, which can function within agency constraints, goals, and available resources into the future. The short-term goals of the pilot project were met by successfully initiating a self-assessment tool and providing stress injury education. Meanwhile, strategies were put in place for tracking long-term mental health and well-being goals so that the agency could more accurately determine where to focus its organizational support.

CHAPTER FOUR

ADVANCED NURSING ESSENTIALS REFLECTION

As I reflect on the essential competencies for professional nursing outlined by the American Association of Colleges and Nurses in The Essentials (2021), I realize how much I have learned over the past three years. If someone had told me in the fall of 2022 that I would gain the clinical expertise to become a psychiatric nurse practitioner, as well as the understanding of the systemic frameworks needed to assume a leadership role in nursing practice, I would have found that hard to believe. In fact, it wasn't until I reviewed my coursework against the essential competencies that I truly recognized my progress and the increasing confidence to enter professional practice. Four domains particularly illustrate how my Doctor of Nursing Practice (DNP) coursework will inform my future practice: 1) knowledge of nursing practice, 2) person-centered care, 3) scholarship for the nursing discipline, and 4) personal, professional, and leadership development.

Domain 1: Knowledge of Nursing Practice

One unique aspect of nursing is its reliance on a broad knowledge base, effectively acting as a translator of science into clinical practice. Recognizing that health behaviors and outcomes are not limited to individual actions, nursing practice integrates the humanities, social sciences, and the arts to enhance patient health outcomes (Mueller-Burke et al., 2024). Understanding the social and cultural context and applying innovative solutions require inductive reasoning. Unlike deductive reasoning, which seeks certainty and specific conclusions (e.g., the traditional medical model), inductive reasoning resembles a spider web, accounting for greater complexity as part of

patient care. Several DNP theory and research courses necessitated this higher level of contextual synthesis, including Evidence-Based Research I and II, Program Planning and Evaluation, Leadership, and Vulnerability and Health Care in Diverse Communities. The scholarly project served as a capstone to this competency, demonstrating how cultural context, theory, research, relationships, and judgment are all essential for successful quality improvement projects.

Beyond theory, domain 1 was a fundamental DNP essential in my clinical coursework, encompassing Advanced Clinical I through IV and Case Formulation. Grasping statistical data while critically evaluating a study's validity and generalizability enables me to translate scientific findings into clinical practices tailored to meet specific patient needs. For instance, during clinical sessions with patients, I discovered that providing information, such as the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) research from the National Institutes of Mental Health on remission rates, was reassuring and helped patients feel empowered to make decisions about their depression (NIMH, 2009). Most importantly, my communication is modulated through effective educational strategies, motivational interviewing, and an understanding of the patient's social and cultural context. This constitutes the art of clinical practice, which will continue to evolve as I gain experience and actively seek out a broad base of knowledge to inform my practice.

Domain 2: Person-Centered Care

At the heart of nursing is person-centered care, which greatly influences my interactions with patients and shapes my understanding of mental health. The capacity of Psychiatric Mental Health Nurse Practitioners (PMHNPs) to combine psychotherapy models with medication management has strengthened my confidence in providing holistic care. I notice that the tenets of

patient-centered care align closely with the humanistic-existential methods I rely on in my practice. Particularly, phenomenological techniques like Gestalt therapy and motivational interviewing emphasize the importance of individual subjective experiences (Wheeler, 2022). In my Advanced Health Assessments and Advanced Clinical courses, a recurring theme among humanistic strategies emerged: individuals naturally move towards growth, and we can support them as they reach for their potential. I had the privilege of working with a clinical preceptor who skillfully integrated patient goals, effective assessment skills, prioritized diagnostic reasoning, and collaborative care planning in her interactions. I have developed these abilities and continue to enhance my skills in listening to patients' aspirations and aligning them with optimal practices to provide options that meet their needs.

A key component of patient-centered care involves delivering services through a relational perspective (Mueller-Burke et al., 2024). This perspective encompasses not just the individual, but also how communities perceive health-seeking behaviors and how organizational frameworks support their workers. In my academic project, I implemented the social-ecological model to contextualize the experiences of law enforcement personnel within the wider influences on their health-seeking behaviors, such as institutional support, community attitudes toward mental health, and national policies. Additionally, I showcased my ability to cultivate relationships by establishing trust with individuals in an organization typically skeptical of outsiders. Ultimately, patient-centered care emphasizes the humanity of patients while reflecting my humility in providing care to those with complex lived experiences.

Domain 4: Scholarship for the Nursing Discipline

A key competency for doctoral-level practice is synthesizing research and applying evidence-based practices to fill healthcare gaps. My successful quality improvement project with a local police department demonstrates my competency in nursing scholarship. In this project, I analyzed existing literature, utilized phenomenological and systems-based theories, and implemented evidence-based practices for first responders. Throughout this experience, I developed unique APRN skills to leverage available knowledge and devise innovative solutions to clinical challenges. Similar to the idea of inductive reasoning, my nursing role involves linking theory, research, and practice, which would remain disconnected without nurses building connections to eliminate these gaps. Engaging in scholarship is a crucial step for implementing *nursing care principles* outlined by the American Association of Colleges of Nursing (AACN), including clinical judgment, communication, compassionate care, diversity, equity, inclusion, ethics, health policy, and social determinants of health (Mueller-Burke et al., 2024). I plan to assert the nursing care principles in the healthcare arena by using my research assessment, integration, and problem-solving skills.

During my Evidence-Based Practice and Statistical Applications courses, I strengthened my ability to interpret research for clinical use. These courses also highlighted my skill in applying epidemiological insights and critically analyzing practice guidelines to improve clinical practice. Throughout the DNP program, I refined my professional writing skills to effectively convey nursing theory and practice to a broader audience. I simplified complex research for patient education and plan to continue engaging with scholarly work in professional journals.

Domain 10: Personal, Professional, and Leadership Development

By integrating the previous domains, I plan to advance my education in my personal, professional, and leadership roles as an advanced practice nurse (APRN) practitioner. During my Advanced Nursing Leadership course, the APRN was positioned as a guide for change within individuals, institutions, policy initiatives, and cultures. At first, this seemed overwhelming; however, approaching each of my patients and my DNP project through the lens of facilitating change empowers me by framing the change process as closely linked to the outcome. The Design of Healthcare Delivery Systems and Program Planning and Evaluation, Outcomes, & Quality courses equipped me with essential tools to intentionally plan and execute institutional change. Change theory and quality improvement frameworks were critical elements that informed my DNP project and significantly contributed to its success. Moving forward, I will maintain this growth mindset when confronted with challenges by reminding myself that as an APRN, I am acting as a mountain guide through the challenging terrain of the change processes to enhance patient health outcomes.

Furthermore, my QI project directly addressed the evaluation of workplace environments and contributed to the well-being of individuals in the helping professions. Self-awareness and organizational support for psychological stress in these professions will ensure a workforce capable of continuing to assist our communities. By working with a law enforcement agency, I demonstrated that mental health nursing is at the forefront of translating research into organizational change. Many participants from the agency were unaware of the breadth and depth of nursing expertise that encompasses system-level change and mental health advocacy in the community. The potential for APRN influence in communities is vast. Consequently, one reason I chose a nursing career is its lifelong learning opportunities and the understanding that a

resilient and adaptable career depends on it. Throughout my journey, I have significantly benefited from mentors and will extend the same support to the next generation of APRNs.

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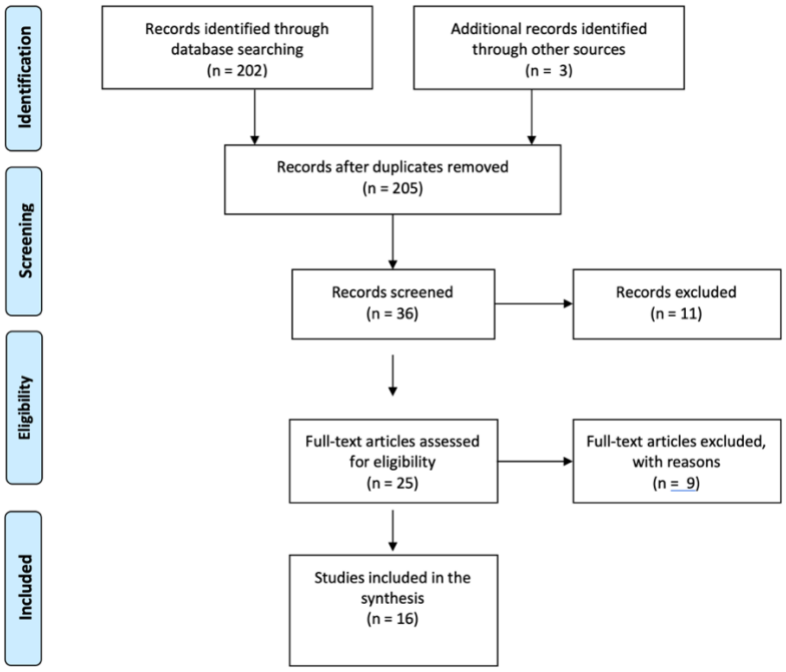
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APPENDICES

APPENDIX A

APPENDIX A METHODS & FRAMEWORK

Figure A1. PRISMA Flow Diagram



Note. PRISMA Flow diagram of included studies adapted from Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G. & the PRISMA Group (2009).

Table A1. Police Department Mental Health Programs

Program	# of Members: Member composition	Meeting Frequency	Staff annual Engagement	Organizational Budget
Wellness Committee	Patrol Captain, Detective Captain, Patrol Officer, Detective Corporal	Quarterly	N/A	No budget
Peer Support Program	(*waiting on data)	Monthly	(*waiting on data)	Volunteer, No Budget
Employee Assistance Program	Administrative staff	N/A	(*waiting on data)	(*waiting on data)
Crisis Support Chaplains	1	N/A	(*waiting on data)	Volunteer
911 At Ease International	N/A	N/A	Unable to track	(*waiting on data)
Subscription App	N/A	N/A	5	$10,000 annually

Figure A2. Fishbone Diagram

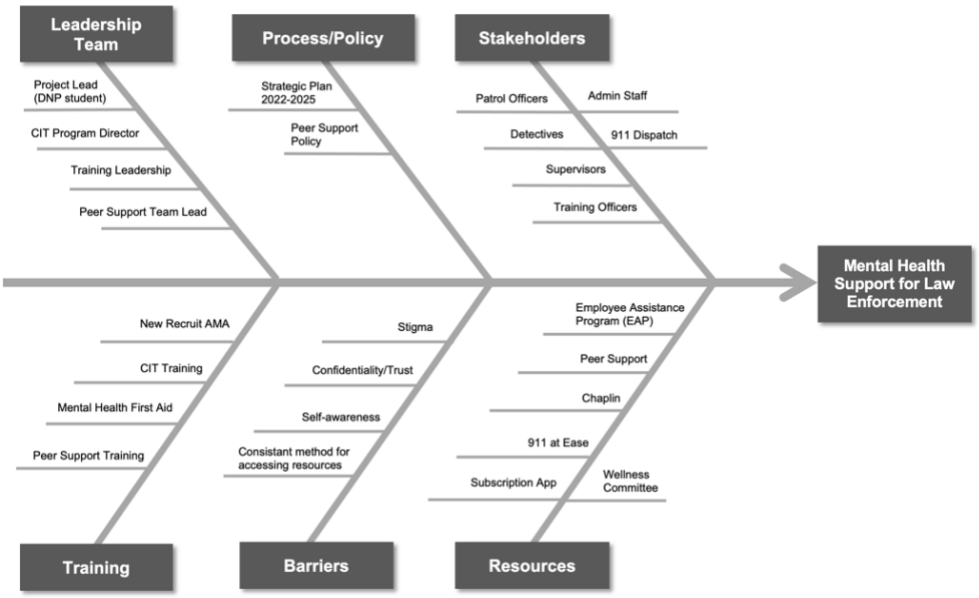


Figure A3. Social-Ecological Model

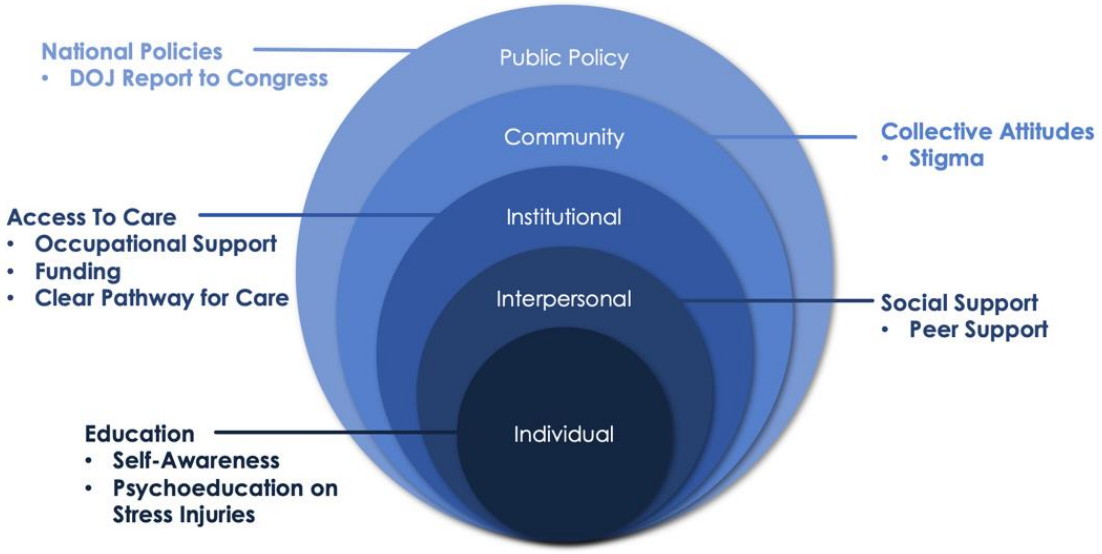


Figure A4. Phase One Logic Model

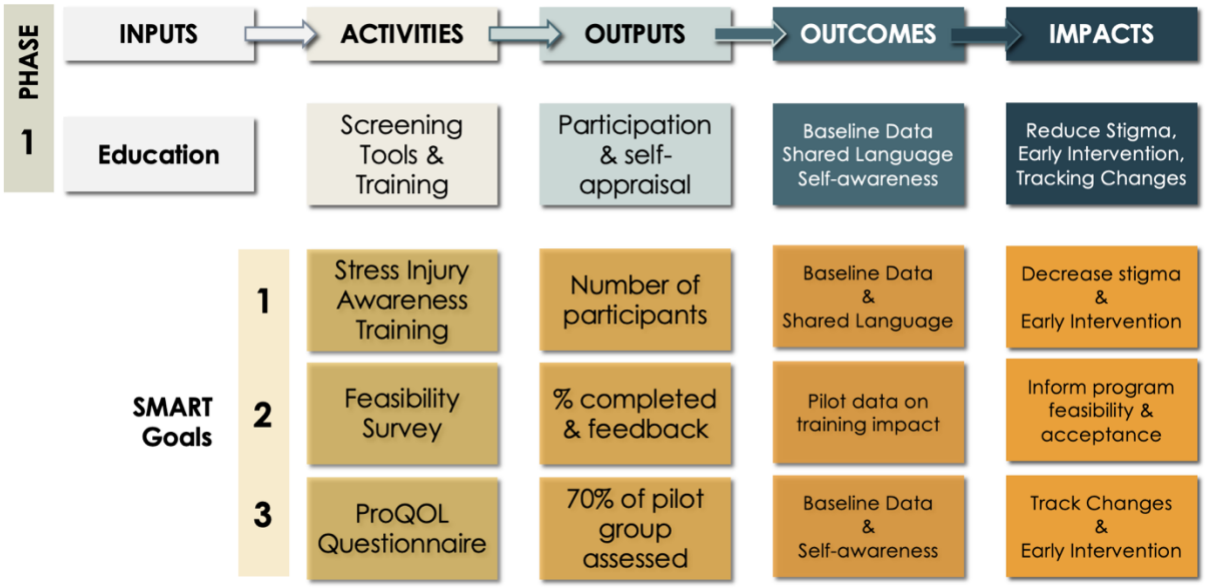


Table A2. Project Implementation

Input	Timeline	SMART Goal	Internal Activity	Measurement	Goal
Education	February 12th, 2025	1	Provide Stress First Aid training	# of participants	Minimum of 5 patrol officers, 2 supervisors, & 1 training officer
	February 12th	2	Feasibility Survey	Likert and open-ended questions	Pilot feasibility and acceptance
	February 5th-11th 2025	3	Participants complete the ProQOL Questionnaire before intervention	# of completed questionnaires	> 70% participants complete screening
	February 19th, 2025	4	Document ProQOL results	Itemized & aggregate ProQOL results	Baseline data for long-term comparison

APPENDIX B

APPENDIX B SMART GOALS

Table B1. SMART Goal #1

<table>
<tr><td colspan="3">SMART Goal #1: Provide Stress First Aid training to a pilot group of at least ten patrol officers, two supervisors, and two training officers to determine feasibility.</td></tr>
<tr><td colspan="3">Description of strategies to be utilized to accomplish goal including any needed resources.
The specific goal is to pilot the Stress First Aid training with a small group of stakeholders to determine feasibility. The goal of the training curriculum is to reduce stigma and build a shared language about stress injuries.
A team of stakeholders, led by the site representative, and project lead, will develop a 2-hour training that integrates current training with specific psychoeducation on stress injuries from the Stress First Aid curriculum.
The project team with department Captains determine a recruitment plan. Participation numbers are attainable through direct recruitment from department Captains.
Participation or declining participation will have no punitive consequences.
Project lead will work with the training leadership to find the available time for the training in February 2025.
Funding will be secured with the help of the CIT Program Director and training leadership.</td></tr>
<tr><td>Data to be collected (measure)</td><td>Method of Collection and who is responsible</td><td>Planned data analysis</td></tr>
<tr><td>Number of participants and roles at the end of the training.</td><td>- The project leader collects participation numbers.
- CIT program data analyst is responsible to keep in records to compare participation metric with future phases and years.</td><td>Upon the completion of the training, the total number of participants will be to compared to the goal. Evaluation within the project team will address barriers if the goal was not met.</td></tr>
</table>

Table B2. SMART Goal #2

SMART Goal #2: Achieve at least 70% of the pilot training participants complete a feasibility survey after the training to assess whether it meets desired goals for the intervention.		
Description of strategies to be utilized to accomplish goal including any needed resources. • The greater the proportion of staff trained in stress injuries, the closer the host agency will reach the critical mass necessary to establish a common language. • Likert scores and open-ended questions inform program feasibility, acceptance, and flag any potential problems seen by the participants.		
Data to be collected	Method of Collection and who is responsible	Planned data analysis:
The percentage of participants who complete the survey. 7 question Likert score & narrative thematic results	- Qualtrics survey - Results compiled by project lead	March 2024 after the surveys have been submitted

Table B3. SMART Goal #3 and 4

<table>
<tr><td colspan="3">SMART Goal #3 & 4: Achieve at least 70% completion of Professional Quality of Life (ProQOL) questionnaires by participants before the Stress First Aid training and document results for baseline data.</td></tr>
<tr><td colspan="3">Description of strategies to be utilized to accomplish goal including any needed resources.
The specific goal is for patrol officers to know their current (baseline) state of mental health as measured by the ProQOL for compassion satisfaction and compassion fatigue.
During the recruitment phase in January 2025, project team leaders and department supervisors will use direct email solicitation to recruit participant volunteers Clear communication regarding strict confidentiality of survey results.
Participation or declining participation will have no punitive consequences.
Education is provided about the intended use of the survey results as self-assessment and aggregated results.
Project lead will work with the IT department and leadership to ensure confidentiality.
Participant education is provided regarding the purpose of the surveys, their rights as participants to decline, and the confidentiality of their answers.
The project leader, department Captains, and the CIT Program Director will work together to ensure the survey, and the education provided for informed participation adheres to agency, university, and IRB standards.</td></tr>
<tr><td>Data to be collected</td><td>Method of Collection and who is responsible</td><td>Planned data analysis
March 3-14th 2025</td></tr>
<tr><td>The total number of ProQOL questionnaires obtained before the training</td><td rowspan="2">- The project lead will send the ProQOL questions via Qualtrics to the participants one week prior to the training.
- The project lead will aggregate the completed survey results and report findings to the program team.</td><td>Project team analysis of potential barriers if the 70% goal was not reached.</td></tr>
<tr><td>The itemized and aggregate ProQOL results.</td><td>Project team evaluation of the baseline ProQOL results of the participant group and potential implications.</td></tr>
</table>

APPENDIX C

APPENDIX C QUESTIONNAIRES & SURVEYS

Figure C1. Professional Quality of Life Scale (ProQOL)

PROFESSIONAL QUALITY OF LIFE SCALE (PROQOL)

COMPASSION SATISFACTION AND COMPASSION FATIGUE
(PROQOL) VERSION 5 (2009)

When you *[help]* people you have direct contact with their lives. As you may have found, your compassion for those you *[help]* can affect you in positive and negative ways. Below are some-questions about your experiences, both positive and negative, as a *[helper]*. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the *last 30 days*.

1=Never 2=Rarely 3=Sometimes 4=Often 5=Very Often

_____ 1. I am happy.
_____ 2. I am preoccupied with more than one person I *[help]*.
_____ 3. I get satisfaction from being able to *[help]* people.
_____ 4. I feel connected to others.
_____ 5. I jump or am startled by unexpected sounds.
_____ 6. I feel invigorated after working with those I *[help]*.
_____ 7. I find it difficult to separate my personal life from my life as a *[helper]*.
_____ 8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I *[help]*.
_____ 9. I think that I might have been affected by the traumatic stress of those I *[help]*.
_____ 10. I feel trapped by my job as a *[helper]*.
_____ 11. Because of my *[helping]*, I have felt "on edge" about various things.
_____ 12. I like my work as a *[helper]*.
_____ 13. I feel depressed because of the traumatic experiences of the people I *[help]*.
_____ 14. I feel as though I am experiencing the trauma of someone I have *[helped]*.
_____ 15. I have beliefs that sustain me.
_____ 16. I am pleased with how I am able to keep up with *[helping]* techniques and protocols.
_____ 17. I am the person I always wanted to be.
_____ 18. My work makes me feel satisfied.
_____ 19. I feel worn out because of my work as a *[helper]*.
_____ 20. I have happy thoughts and feelings about those I *[help]* and how I could help them.
_____ 21. I feel overwhelmed because my case [work] load seems endless.
_____ 22. I believe I can make a difference through my work.
_____ 23. I avoid certain activities or situations because they remind me of frightening experiences of the people I *[help]*.
_____ 24. I am proud of what I can do to *[help]*.
_____ 25. As a result of my *[helping]*, I have intrusive, frightening thoughts.
_____ 26. I feel "bogged down" by the system.
_____ 27. I have thoughts that I am a "success" as a *[helper]*.
_____ 28. I can't recall important parts of my work with trauma victims.
_____ 29. I am a very caring person.
_____ 30. I am happy that I chose to do this work.

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YOUR SCORES ON THE PROQOL: PROFESSIONAL QUALITY OF LIFE SCREENING

Based on your responses, place your personal scores below. If you have any concerns, you should discuss them with a physical or mental health care professional.

Compassion Satisfaction _____

Compassion satisfaction is about the pleasure you derive from being able to do your work well. For example, you may feel like it is a pleasure to help others through your work. You may feel positively about your colleagues or your ability to contribute to the work setting or even the greater good of society. Higher scores on this scale represent a greater satisfaction related to your ability to be an effective caregiver in your job.

If you are in the higher range, you probably derive a good deal of professional satisfaction from your position. If your scores are below 23, you may either find problems with your job, or there may be some other reason—for example, you might derive your satisfaction from activities other than your job. (Alpha scale reliability 0.88)

Burnout_____

Most people have an intuitive idea of what burnout is. From the research perspective, burnout is one of the elements of Compassion Fatigue (CF). It is associated with feelings of hopelessness and difficulties in dealing with work or in doing your job effectively. These negative feelings usually have a gradual onset. They can reflect the feeling that your efforts make no difference, or they can be associated with a very high workload or a non-supportive work environment. Higher scores on this scale mean that you are at higher risk for burnout.

If your score is below 23, this probably reflects positive feelings about your ability to be effective in your work. If you score above 41, you may wish to think about what at work makes you feel like you are not effective in your position. Your score may reflect your mood; perhaps you were having a "bad day" or are in need of some time off. If the high score persists or if it is reflective of other worries, it may be a cause for concern. (Alpha scale reliability 0.75)

Secondary Traumatic Stress_____

The second component of Compassion Fatigue (CF) is secondary traumatic stress (STS). It is about your work related, secondary exposure to extremely or traumatically stressful events. Developing problems due to exposure to other's trauma is somewhat rare but does happen to many people who care for those who have experienced extremely or traumatically stressful events. For example, you may repeatedly hear stories about the traumatic things that happen to other people, commonly called Vicarious Traumatization. If your work puts you directly in the path of danger, for example, field work in a war or area of civil violence, this is not secondary exposure; your exposure is primary. However, if you are exposed to others' traumatic events as a result of your work, for example, as a therapist or an emergency worker, this is secondary exposure. The symptoms of STS are usually rapid in onset and associated with a particular event. They may include being afraid, having difficulty sleeping, having images of the upsetting event pop into your mind, or avoiding things that remind you of the event.

If your score is above 41, you may want to take some time to think about what at work may be frightening to you or if there is some other reason for the elevated score. While higher scores do not mean that you do have a problem, they are an indication that you may want to examine how you feel about your work and your work environment. You may wish to discuss this with your supervisor, a colleague, or a health care professional. (Alpha scale reliability 0.81)

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WHAT IS MY SCORE AND WHAT DOES IT MEAN?

In this section, you will score your test so you understand the interpretation for you. To find your score on **each section,** total the questions listed on the left and then find your score in the table on the right of the section.

Compassion Satisfaction Scale

Copy your rating on each of these questions on to this table and add them up. When you have added then up you can find your score on the table to the right.

3. ____
6. ____
12. ____
16. ____
18. ____
20. ____
22. ____
24. ____
27. ____
30. ____

Total: ____

The sum of my Compassion Satisfaction questions is	And my Compassion Satisfaction level is
22 or less	Low
Between 23 and 41	Moderate
42 or more	High

Burnout Scale

On the burnout scale you will need to take an extra step. Starred items are "reverse scored." If you scored the item 1, write a 5 beside it. The reason we ask you to reverse the scores is because scientifically the measure works better when these questions are asked in a positive way though they can tell us more about their negative form. For example, question 1. "I am happy" tells us more about the effects of helping when you are *not* happy so you reverse the score

You Wrote	Change to
	5
2	4
3	3
4	2
5	1

*1. ____ = ____
*4. ____ = ____
8. ____
10. ____
*15. ____ = ____
*17. ____ = ____
19. ____
21. ____
26. ____
*29. ____ = ____

Total: ____

The sum of my Burnout Questions is	And my Burnout level is
22 or less	Low
Between 23 and 41	Moderate
42 or more	High

Secondary Traumatic Stress Scale

Just like you did on Compassion Satisfaction, copy your rating on each of these questions on to this table and add them up. When you have added then up you can find your score on the table to the right.

2. ____
5. ____
7. ____
9. ____
11. ____
13. ____
14. ____
23. ____
25. ____
28. ____

Total: ____

The sum of my Secondary Trauma questions is	And my Secondary Traumatic Stress level is
22 or less	Low
Between 23 and 41	Moderate
42 or more	High

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Table C1. Feasibility Survey

Q#	Question	Answer type
1	Overall, I found the course useful.	Likert
1.1	Please provide details about why you chose a particular rating.	Open ended
2	The material met or exceeded my expectations.	Likert
2.1	Please provide details about why you chose a particular rating.	Open ended
3	The material is relevant to my role.	Likert
3.1	Please provide details about why you chose a particular rating.	Open ended
4	I will be able to apply the knowledge and skills to my work.	Likert
4.1	Please provide details about why you chose a particular rating.	Open ended
5	The length of the course was appropriate for the content.	Likert
5.1	Please provide details about why you chose a particular rating.	Open ended
6	The training needs a follow-up session.	Likert
6.1	Please provide details about why you chose a particular rating.	Open ended
7	The training should be provided to all agency staff.	Likert
7.1	Please provide details about why you chose a particular rating.	Open ended
8	Rank the content most to least important/relevant to you (1 = most to 4 = least). A) Pilot program reasoning and background B) Stress injury physiology and types of stress injuries C) Stress First Aid D) Tools and resources for post-incident response	Rank order
9	What was the **most** important content and why?	Open ended
10	What was the **least** important content and why?	Open ended
11	What improvements could be made to the course content for your team's needs?	Open ended
12	Which content would be best for the entire team, and what content could be best targeted to a particular group?	Open ended
13	Please provide any other feedback you would like to share with us.	Open ended

Note. Likert scale: 1 = strongly disagree to 5 = strongly agree.

APPENDIX D

APPENDIX D RESULTS

Table D1. Professional Quality of Life (ProQOL) Subcategory Results

Subcategory	Mean	SD	Range	Interpretation
Compassion Satisfaction (CS)	35.8	6.28	25-48	Moderate
Burnout (BO)	25.9	5.80	11-36	Low Moderate
Secondary Traumatic Stress (STS)	26.5	6.04	16-37	Low Moderate

Note. n = 16. Interpretation: 22 or less = Low, between 23 and 41 = moderate, 42 or more = High

Table D2. Professional Quality of Life (ProQOL) Question Results

Q#	Subcategory and Questions	M	SD
	Compassion Satisfaction (CS)		
Q3	I get satisfaction from being able to help people.	4.2	0.63
Q6	I feel invigorated after working with those I help.	3.4	0.79
Q12	I like my work as a first responder/public safety personnel.	3.8	0.90
Q16	I am pleased with how I am able to keep up with first responder/public safety techniques and protocols.	3.6	1.05
Q18	My work makes me feel satisfied.	3.4	1.00
Q20	I have happy thoughts and feelings about those I help and how I could help them.	3.2	0.88
Q22	I believe I can make a difference through my work.	3.6	1.00
Q24	I am proud of what I can do to help.	3.8	0.95
Q27	I have thoughts that I am a "success" as a first responder/public safety personnel	2.9	0.90
Q30	I am happy that I chose to do this work.	3.8	0.95
	Burnout (BO)		
Q1	I am happy.	2	0.61
Q4	I feel connected to others.	2.5	0.79
Q8	I am not as productive at work because I am losing sleep over traumatic experiences of a person I helped.	2	0.61
Q10	I feel trapped by my job as a first responder/public safety personnel.	2.75	1.30
Q15	I have beliefs that sustain me.	1.9	0.86
Q17	I am the person I always wanted to be.	2.5	1.06
Q19	I feel worn out because of my work as a first responder/public safety personnel.	3.7	0.98
Q21	I feel overwhelmed because my case/work load seems endless.	3.4	1.05
Q26	I feel “bogged down” by the system.	3.3	1.21
Q29	I am a very caring person.	1.9	0.75
	Secondary Traumatic Stress (STS)		

Q2	I am preoccupied with more than one person I respond to on scene.	2.9	1.09
Q5	I jump or am startled by unexpected sounds.	2.9	0.99
Q7	I find it difficult to separate my personal life from my life as a first responder/public safety personnel.	2.8	0.78
Q9	I think I might have been affected by the traumatic stress of those I help.	3.1	1.14
Q11	Because of my job, I have felt “on edge” about various things.	3.2	1.01
Q13	I feel depressed because of the traumatic experiences of the people I help.	2.3	0.85
Q14	I feel as though I am experiencing the trauma of someone I have helped.	2.3	0.92
Q23	I avoid certain activities or situations because they remind me of frightening experiences of the people I help.	2.2	0.95
Q25	As a result of my work, I have intrusive, frightening thoughts.	2.6	0.86
Q28	I can't recall important parts of my work with trauma victims.	2.2	0.73

Note. n = 16. Interpretation 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Very Often

Table D3. Feasibility Survey and Ordinal Results

Q#	Questions	M	SD
1	Overall, I found the course useful.	4.5	0.50
2	The material met or exceeded my expectations.	4.2	0.60
3	The material is relevant to my role.	4.2	0.98
4	I will be able to apply the knowledge and skills to my work.	4.4	0.66
5	The length of the course was appropriate for the content.	2.8	1.25
6	The training needs a follow-up session.	4.2	0.87
7	The training should be provided to all agency staff.	4.7	0.46

Note. n = 10. Likert scale: 1 = strongly disagree to 5 = strongly agree