The Effect of a Resiliency Program on Psychological Well-being and Resilience of Miami-Dade Firefighters: A Quality Improvement Project

Elio Perez
Florida International University, epere252@fiu.edu

Follow this and additional works at: https://digitalcommons.fiu.edu/cnhs-studentprojects

Recommended Citation
https://digitalcommons.fiu.edu/cnhs-studentprojects/166

This work is brought to you for free and open access by the Nicole Wertheim College of Nursing and Health Sciences at FIU Digital Commons. It has been accepted for inclusion in Nicole Wertheim College of Nursing Student Projects by an authorized administrator of FIU Digital Commons. For more information, please contact dcc@fiu.edu.
The Effect of a Resiliency Program on Psychological Well-being and Resilience of Miami-Dade Firefighters: A Quality Improvement Project

A Scholarly Project Presented to the Faculty of the Nicole Wertheim College of Nursing and Health Sciences

Florida International University

In partial fulfillment of the requirements

For the Degree of Doctor of Nursing Practice

By

Elio Perez, MSN, PMHNP-BC

Doctor of Nursing Practice Lead Professor
Deborah Sherman, PhD, APRN, ANP-BC, ACHPN, FAAN

Clinical Preceptor
Sandra Munsey, DNP, PMHNP-BC

Approval Acknowledged: _______________________________, DNP Program Director

Date: _________________________

11/17/2022
Acknowledgments

I would like to express my sincere and profound appreciation to Dr. Deborah Sherman, Dr. Sandra Munsey, Chief Fire Officer Willie Williams, and Lieutenant Fred DeFrias for your continuous and unwavering support during my DNP process. Without your wisdom and guidance my project would not have been possible.

To my parents and grandparents who never stopped believing in me. You will never understand how much you have inspired me. Through your caring and sacrifice I am who I am today.

To my three sons. Never forget that your Dada loves you. Life is filled with good times and hard times. Learn from everything and remember not to sweat the small stuff.

To my wife and soulmate Annette. Thank you for always being my rock and my constant source of encouragement. My improbable journey would not have been possible without you by my side. We did it boo!
Abstract

**Background:** In their course of duty, firefighters are predisposed to inevitable stressful and traumatic occurrences that result in emotional, psychological, and behavioral health issues, such as depression, substance abuse, anxiety, PTSD, and suicide. Prevailing measures to address the concerns largely concentrate on assistance and treatment related to traumatic incidents. While these measures are requisite, positive psychology suggests a more proactive strategy through the advancement of resilience strategies. Such strategies assist firefighters to resist the adverse impacts of distressing incidents and support their overall mental well-being. Resilience training serves to safeguard the personnel from negative impacts by preparing them to effectively cope and navigate traumatic experiences in their life.

**Methods:** The study employed the PDSA methodology. The study design was pre-test and post-test following an intervention to promote resilience. The sample consisted of eleven firefighters and paramedics from the Miami-Dade Fire Department. Instruments included a Demographic and Professional Data Form and the Brief Resilience Scale (BRS) and Positive and Negative Affect Schedule (PANAS).

**Results:** The pre and post-intervention results of BRS and PANAS scores revealed that the resilience training intervention program statistically improved psychological well-being and resilience among participants.

**Conclusions:** Resilience training for firefighters and paramedics improve the psychological well-being and increase resilience of participants, especially when based on mindfulness and cognitive-behavioral approaches.

**Keywords:** Resilience, resiliency training, firefighters, paramedics, and psychological well-being.
# Table of Contents

I. **Introduction** .................................................................................................................. 6  
   Problem Identification/Background .............................................................................. 6  
   Scope of Problem (Incidence and Prevalence) .............................................................. 8  
   Significance and Consequences of the Problem ............................................................ 9  

II. **Summary of the Literature** ......................................................................................... 11  

III. **Purpose, PICOT Clinical Question, and SMART Goals** ........................................... 23  
    Purpose ...................................................................................................................... 23  
    PICOT Clinical Question ............................................................................................ 24  
    SMART Goals and Outcomes ..................................................................................... 26  

IV. **Organizational Assessment and SWOT Analysis** ....................................................... 26  

V. **Definition of Terms** .................................................................................................. 36  

VI. **Conceptual Underpinning and Theoretical Framework of the Project** ...................... 36  

VII. **Methodology** ......................................................................................................... 41  
    Introduction of QI Methodology (PDSA) .................................................................. 41  
    Plan Phase ................................................................................................................ 42  
    Study Design .......................................................................................................... 42  
    Setting ..................................................................................................................... 42  
    Sample .................................................................................................................... 42  
    Intervention ........................................................................................................... 43  
    Instruments ............................................................................................................ 43  
    Data Collection, Management, and Protection of Human Subjects ......................... 44  
    Data Analysis ........................................................................................................ 44  

VIII. **Results** ................................................................................................................ 45  

IX. **Discussion** ............................................................................................................. 48  

X. **Limitations** ............................................................................................................. 51  

XI. **Implications for Practice** ........................................................................................ 51  

XII. **Conclusion** ........................................................................................................... 52  

XIII. **Dissemination Plan** ............................................................................................... 53  
    Introduction ............................................................................................................ 53  
    Dissemination by Presentation ................................................................................. 53  
    Dissemination by Publication .................................................................................. 53  

XIV. **References** .......................................................................................................... 54
Appendices

IRB Approval Letter
Letter of approval from facility
Written Consent Form
Recruitment Flyer
Study instruments
DNP Project PowerPoints
I. Introduction

Problem Identification/Background

Firefighters are considered a crucial workforce in the history of the United States. These individuals are tasked with ensuring the health and welfare of the American population during emergencies and related incidents in various segments of society. Firefighters’ duty surpasses the typical firefighting services by offering specialized crisis responder amenities like vehicle disengagement, harmful material response, technical rescue, and wildland interface among others. As reported in 2013, the United States was under the protection of almost 30,000 fire departments (Deppa & Saltzberg, 2016). Haynes and Stein (2014) noted that 31 percent of the approximately 1,140,750 firefighters in 2013 were career personnel, and almost 69 percent were volunteers. From these figures, nearly 60 percent of fire establishments similarly provide their communities with emergency medical services in basic and advanced categories (Haynes & Stein, 2014). Firefighters are the country's foremost responders in many communities, offering emergency medical services with 80% being the responses to the request of therapeutic aid, where they are the first to reach the scene of an event and among the first to administer care to victims (Deppa & Saltzberg, 2016).

The Miami-Dade Fire Rescue Department (MDFR) is responsible for providing emergency medical services and fire protection over 1,800 square miles of Miami-Dade County. MDFR consists of 20 divisions, 14 battalions, and 71 stations. Serving these stations are 60 firefighters, 41 engines, 11 trucks, 8 platforms, 6 HAZMAT units, 1 Urban Search and Rescue (USAR) team, 4 Air Rescue helicopters, and 2 fireboats. Running these divisions, battalions, and stations are over 2,000 uniformed firefighters. In 2017, MDFR responded to over 280,000 9-1-1 generated calls. The Miami-Dade Fire Rescue’s (MDFR) main objective in serving the public is anchored on the motto of "Always Ready, Proud to Serve." This motto
resonates with the need to enhance the safety, awareness, and responsibility of the individuals within the Miami-Dade Fire Rescue.

From the time the first organized fire corporations were created, following a request by Benjamin Franklin in the 1730s, firefighters have always run towards danger when almost everyone else runs away from it. Indeed, the fire service is ever ready to serve the American public. Unfortunately, such readiness comes at a cost of emotional and psychological burden on the personnel which many result in disorders such as PTSD and anxiety and increase likelihood of suicides. In dealing with the identified problems, adopting a resiliency program to train firefighters to deal and cope with the traumatic incidents denote a vital intervention. Evidence of the efficacy of resiliency training on first responders has been proposed in a range of literature.

Resiliency connotes the construct of bouncing back. According to Murphy (2020), the concept signifies the ability to recover from adversity, misfortune, and calamity. It entails healthily dealing with stress. Resiliency similarly involves upholding a nous of self-efficacy which is critical in creating the desired level of performance. Individuals facing adversity and associated dangerous instances transpiring in their lives develop skills to adapt to the varying conditions and withstand their negative influences. The resilience concept advanced in the process acts as a safety mechanism against undesirable incidents for firefighters who have been frequently exposed to dangerous circumstances. According to Heydari et al. (2022), firefighters who have evolved resiliency can effectively cope with intricate instances and adapt to dangerous settings. Such individuals can 'bounce back' from witnessing and experiencing traumatic experiences and appropriately avert psychological disorders like PTSD and anxiety that develop owing to the nature of their occupation.
Scope of the Problem (Incidence and Prevalence)

Firefighting has been identified as one of the most stressful careers in the United States given it is rigorous physically, as well as a psychologically demanding profession requiring dedication and sacrifice to uphold and sustain optimal outcomes (Sharifi et al., 2021). Current research has indicated that firefighting predisposes personnel to mental instability despite their efforts to maintain physical fitness (Denkova et al., 2020). These include psychological health concerns like nervousness, hopelessness, and post-traumatic stress disorder (PTSD). Denkova et al. (2020) report that individuals, who are first responders to dangerous tragedies, are more likely to have increased mortality than from line-of-duty related deaths. This observation is alarming as the rate of mental problems by firefighters has become a global health concern. A projected 20% of firefighters have symptoms of PTSD, as compared to 3.5% of the general population (Rover, 2022). This incidence of PTSD has been linked to their work experiences where most cannot manage the trauma and suffer the aftermath. As a result, firefighters suffer from suicidal ideations. Straud et al. (2018) accentuated the severity of the problem citing a report by the American Psychology Association that indicated that one in every five firefighters manifest behavioral issues at some point in their career and experience depression before their retirement. Further, the report indicated that 85% of the personnel partake in substance and drug abuse and a considerable proportion of retirees are alcoholics.

Alarmingly, more than half of the United States firefighters reveal indications of sleep conditions and burnout which considerably impairs their productivity. In addition, such disorders explain the high rates of absenteeism in the fire department. The performance level in the firefighting departments is being threatened by the augmented rate of mental conditions related to daily work-related stress. Although this proposal is based on Miami Dade Firefighting Department, the issues of concern are the psychological health concerns among
the personnel which has increased. The Florida Urban Search Rescue report that 1 in every 5 responders experienced behavioral health issues, such as anxiety and depression (Roner, 2022). The problem has been exacerbated by the lack of behavioral health programs that can aid firefighters to deal with the psychological concerns due to work trauma and stress. More alarming is that firefighting departments have a culture that perceives personnel who seek treatment and interventions as weak, resulting in limited acceptance of support or treatment for psychological issues. Rover (2022) notes that the individual who experienced depression, anxiety, and related psychological issues subvert their suffering to substance abuse. This helps to explain the augmented rate of alcoholism in fire departments. The proposed DNP Project will examine psychological outcomes of firefighters in MDFR who participate in a resiliency program.

Significance and Consequences of the Problem

The topic of firefighters' mental well-being and the growing health complications and consequences should be of utmost significance to policy makers and healthcare providers. In the context of Miami Dade Fire Rescue, the personnel face grueling and stressful circumstances. As a job requisite, MDFR are expected to provide emotional assistance to disaster victims, which predispose firefighters to trauma. Schuhmann et al. (2021) recounted some emergency medical responders' assertions that they never get sufficient time to recuperate between traumatic incidents, increasing pressure and mental instability, which are highly associated with growing dissatisfaction, reduced productivity, and adverse outcomes in the fire department.

The American population relies on firefighters as first responders during their time of need. According to Jones et al. (2020), firefighters and emergency medical technicians react to more than 50 million disaster requests in the United States. As first responders, firefighters
anticipate that they will be exposed to a myriad of traumatic events like suicides and fires. Nonetheless, mainstream first responders do not realize that the exposures may predispose them to risk for developing mental health problems. According to Jones et al. (2020), first responders have a greater danger of developing psychological complications owing to the nature, frequency, and intensity of work-associated traumatic exposure. Additionally, firefighters’ occupations and work settings are dissimilar from other careers which may influence seeking help for mental health conditions. Firefighters are on duty for 24 to 72 hours consecutively and may respond to a range of traumas like gang violence, motor vehicle accidents, medical emergencies like drowning and suicide attempts, and other distinctive operations like hazardous materials which may augment the severity of traumatic exposure. The personnel also live together for prolonged times at the firehouse and when they return to their homes, they are expected to ‘function’ in daily living (Jones et al., 2020). Similarly, firefighters have an ongoing tenure and can serve in line for 30 years or more. This is dissimilar from other trauma-related occupations like the military where combat deployments are for the designated times. Unlike the military, the first responders are not educated regarding the likelihood of developing mental health complications. Also, the staff rarely get debriefed and assessed for psychological trauma when they return (Jones et al., 2020). When such personnel are battling emotional and psychological traumas and problems, their response efficacy will be impaired. In extreme cases, such “would-be saviors” end up being victims of circumstances that jeopardizes their response and service delivery. They also fail to seek health interventions. According to Jones et al. (2020), first responders cannot show weakness. The concept permeates the occupations’ culture where strength is cherished and anything less may connote a safety risk. Therefore, having a resiliency program for firefighters is important to protecting the health and emotional well-being of first line responders to traumatic events.
II. Summary of the Literature

Search Strategy

A comprehensive literature review was undertaken to identify primary and secondary studies, systematic reviews, and meta-analyses pertinent to the PICO question. The two databases searched were PubMed and the Cumulative Index to Nursing and Allied Health Literature (CINAHL). Google was utilized for information regarding global and national first responder establishments. The keywords employed in the searches were first responders, firefighters, self-efficacy, resiliency training, non-training, coping and psychological well-being. The inclusion criteria for articles were publication dates between 2014 and 2022, with additional seminal articles published before 2014. Other inclusion criteria were English language articles and study participants 18 years and older, retirees, and active personnel of the Fire Department, as well as full text articles. The exclusion criteria involved studies more than 8 years old and a language other than English. The search on CINAHL yielded 141 articles, and the PubMed search identified 42 articles. After a careful review of the titles and abstracts of the articles and applying the inclusion and exclusion criteria, 12 articles were utilized in the literature review.

Firefighter’s and Negative Consequences Related to Psychological Well-Being

Conceptually, firefighters are the work population at greatest risk. Tommasi et al. (2021) attribute this observation to the personnel’s predisposition to the dangers of blasts, fires, or collapses. It is conceivable that the threats to life and health may occasion an augmented level of psychological distress covered in the literature. According to Tommasi et al. (2021), firefighters cope with occupational stress, but are at increased risk of developing PTSD. Stress from traumatic incidents may cause a heart attack. Depression and anxiety can equally impact physical health. Individuals suffering from these conditions increasingly
develop gastrointestinal disorders, migraines, and hypertension (Tommasi et al., 2021). In addition, other negative outcomes of stress comprise social functioning and vitality in work performance. Such individuals can also suffer from sleep conditions, alcohol or smoking abuses, or dependence, as well as cognitive failure. In addition, continuing exposure to psychosocial stressors may result in fatigue (Igboanugo et al., 2021). Tommasi et al. (2021) report that predisposition to worry may amplify suicide risk in firefighters. Therefore, the personnel are predisposed to various factors that negatively impact their psychological well-being.

**Resiliency**

Literature has examined the nature of the concept in first responders. Specifically, it aids with stress management in adverse situations (Sharifi et al., 2021). Boosting resilience at multiple levels necessitates fostering a culture of preparedness and resourcefulness in the face of developing turbulence. Building resiliency signifies an urgent imperative for coping with artificial and natural disasters effectively.

In the psychology domain, resilience is understood as a concept occasioned by interactions between risk and protective measures. Here, the former connotes the measurable personality characteristics or instances that result in maladjustment (Song et al., 2020). They augment personnel's probability of developing emotional, mental, and behavioral complications and even prohibit them from exerting their anticipated levels of know-how. On the other hand, the protective aspects characteristically buffer the adverse impacts of risk factors. As such, individuals wielding protective factors might experience severe maladaptation even at reduced echelons of adversity (Song et al., 2020).

Resilience functions to moderate the association between firefighters’ quality of life and their engagement with PTSD. The concept moderates the link between the personnel's depression and job stress (Song et al., 2020). Specifically, resilience works to augment
firefighters' perceptions of stress and aids them to overcome the agony of being diagnosed with PTSD. These elucidations delineate resilience's role in enhancing staff's mental well-being and quality of life.

Deppa and Saltzberg (2016) established that resilience is a fundamental factor accentuated by positive psychology. The concept primarily deals with how people deal with adverse experiences, including adversity and setbacks that ensue as a portion of a full life (Kyriazos ET AL., 2018). Importantly, the fire service is considerably familiar with the term in the framework of communities and the nation's infrastructure. Here, resilience serves as the capacity to adapt to varying conditions and also bear and recover fast from emergencies ensuing from manmade or natural causes. When the concept is employed in positive psychology, it denotes the process by which persons, like firefighters, adapt positively during or following stressful life events that include risk or adversity. In this context, positive adaptation, also regarded as competence, makes key assumptions. First, individuals are doing fine concerning behavioral prospects for their age and situations. Second, the individuals have been exposed or predisposed significantly to adverse instances (Deppa & Saltzberg, 2016). Positive adaptation and risk exposure are critical concepts delineating the construct of resilience.

Similarly, resilience may be described by the lack of adverse outcomes and also the incident of positive results. Factors that moderate outcomes and adversities to create desirable outcomes are commonly regarded as protective and promotive factors. These factors connote assets that function to enable the individual to predict good adaptation and more desirable results (Deppa & Saltzberg, 2016). It is, however, critical to note that resilience is not a solitary and fixed personality attribute or trait. Instead, it connotes a comprehensive term that denotes a series of approaches and procedures of adapting and coping that are influenced by
the interaction between factors like risks at the individual, relationship, or environmental level.

A key concept of resilience is optimism, also deemed a primary trait of resilient conduct. Optimistic thinkers, unlike their pessimistic counterparts, incline to persevere when encountering considerable challenges. Such individuals attempt to solve challenges instead of avoiding or denying them. They also tend to establish positive meaning in instances. This concept of being hopeful regarding impeding occurrences aids in reinforcing positive psychology which is critical in resilience.

Resilience is crucial in upholding psychological health and preventing the onset of PTSD. This observation is consistent with Song et al.’s (2020) observation that firefighters’ resilience significantly impacts PTSD levels, specifically undertaking a mediating and protective role against the condition. Resilience acts as a strong safety mechanism by shielding firefighters from the negative effects of PTSD (Lee et al., 2014). It has been observed that firefighters with resilience training are able to stabilize their mental response as characterized by normal heart rate during incidents. The skill improves their capability to manage stressful or traumatic experiences. In addition, resilience prevents the development of negative mental health outcomes (Marshall et al., 2017). The concept is delineated as a vital emotional strength that may alter difficulties or hardships into stepping stones for positive growth (Song et al., 2020). Resilience regulates the association between firefighters’ work pressure and depression (Song et al., 2020).

**Resiliency Training/Program: Components**

Resiliency training has been construed as one of the most crucial psychological skills (Sharifi et al., 2021). According to Scheuch et al. (2021), the significance of resilience for employees’ well-being and performance at work has been increasingly recognized in
contemporary years. The training instructs individuals regarding the requisite skills for adapting and returning to the pre-crisis status. The key components entail emotion-regulation training that is crucial for adaptive functioning (Sharifi et al., 2021).

Deppa and Saltzberg (2016) construed self-efficacy as a construct associated with competence for exploring, manipulating, and influencing one's setting. The term connotes the conviction and confidence in one's agency or capacity to function in a manner that ensues in positive results. Augmented self-efficacy get linked to happiness and health, reduced anxiety and depression, and the adoption of healthy conduct. The concept impacts individuals' sense of mastery, their resolutions regarding behaviors, and their choice of undertakings. According to Sharifi et al. (2021), the self-efficacy concept is critical in the firefighting service as it functions as a defensive and supportive psychological approach against the adverse effects of the occupation. It can be construed as a distinctive person's conception of their capacity to plan, act, and realize objectives. Usually, firefighters' career is largely limited to the physical aspects. Stress management exercise employing self-efficacy boosts the subscale and preserves the position of stress at standard heights.

On the other hand, self-awareness serves to enable firefighters to create resilience so that they can 'bounce' back from any setback manifesting in their lives. When personnel comprehend their strengths and possible improvement areas, they may adjust accordingly, and establish positive decisions that reflect their nature. Cognition acts as a moderator in the resilience process, mitigating the adverse impacts of undesirable experiences on adaptation. Sharifi et al. (2021) delineated emotion regulation training as critical in individuals unable to control their emotions during stressful instances. The concept functions by reducing and controlling adverse emotions and performance. Emotion control is vital for adaptive operation (Sharifi et al., 2021). In most instances, the application of maladaptive approaches might occasion undesirable results, like reduced levels of well-being and physical illness.
Emotion regulation works to augment self-efficacy, psychological welfare, and resilience for individuals. These constituents work in aiding resilience exercise plans for firefighters.

A key feature of resilience training is its emphasis on mind control and augmenting personality and psychological characteristics. Other components include self-care, upholding a larger perspective, and establishing resourceful thoughts (Sharifi et al., 2021). These aspects are intended to enable achievement of training goals and program essentials.

**Firefighter’s Stress and Resiliency Training Interventions**

Firefighting has been considered the most stressful job in the United States. Sharifi et al. (2021) note that stressful jobs may impact individuals’ psychological health and their health. The association between resiliency training and firefighters is broadly explored in the literature. Behzadpour et al. (2015) observed that resiliency training effectively impacts people’s mental well-being. It is, therefore, crucial for firefighters to wield resiliency, which is considered requisite for the mental health of persons (Behzadpour et al., 2015). Sharifi et al. (2021) noted that the resiliency training is indispensable for firefighters as they are often exposed to work-related stressors that affect their psychological health. Resiliency intervention programs aid in reducing anxiety symptoms in adolescents and burnout in nurses (Sharifi et al., 2021). The programs assist firefighters to develop self-efficacy that improves psychological health and overall performance.

The relationship between resilience training and care outcomes in the context of firefighters has been extensively covered in the literature. It is requisite to note that most literature employs different approaches to underscore the role of such an intervention. A focus of the pertinent research has been on the context of the firefighting environment and the personnel’s vulnerability to psychological and behavioral conditions. A crucial point of consideration is that firefighter emergency responders occasionally face unavoidable work-
related stresses like graphic and violent accidents. In addition, there is a growing risk of emotional and psychological conditions that influence behavioral health like anxiety, depression, and PTSD.

To address the emotional and health risks associated with firefighting, Joyce et al. (2019) examined the efficacy of resilience training for firefighters who are predisposed to stressful circumstances and potentially traumatic events that may gradually impact their health. Joyce et al. (2019) asserted that such first responders may actively benefit from proactive resilience training as it allows them to face difficulties and other trials and endure the upsetting experiences with a sense of pride. Indeed, the resilience training supports a special aspect of character that allows them to face danger patiently and bravely.

Joyce et al. (2019) examined the impact of resiliency training compared to no training. The study was a randomized controlled trial (RCT) consisting of 24 primary fire and rescue and hazmat locations within New South Wales. Twelve stations are enrolled in a 6-session RAW Mindfulness Program and the twelve stations served as the control condition. Overall, 143 active, full-time firefighters participated in the study. The instruction duration was two hours over a minimum of three and a half weeks. The results indicate that the highest improvements were recorded among the participants who completed the training. The results reveal that resilience training, including approaches like mindfulness, creates positive consequences for other high-risk groups like paramedics. The observation aligns with that of Sharifi et al. (2021) that firefighters who receive training, compared to those who do not, can control their thoughts and increase self-control. Techniques like emotion control enable one to distinguish emotions and their implications on physiology and behavior.

Gunderson et al. (2014) assessed the effectiveness of a first responder resiliency instruction program incorporating skills for augmenting relaxation, goal setting, social support, sleep, and empathy. The program’s objective was to apply resiliency practices that
appropriately manage stress and improve personal and expert growth through intentionally practicing a resiliency skill set and creating a social framework to augment resiliency. In their pilot study, the authors reported that participants showed significant improvement in self-reported resiliency scores and recommended the training to others. The results of such training when compared to no training reveal that resiliency enables first responders to withstand stressors, and decreases adverse health outcomes.

The significance of resiliency training for first responders was also examined by Lee et al. (2014). The authors sought to evaluate the effectiveness of mindfulness practice in alleviating stress symptoms like bodily stress, PTSD, substance abuse, and depression among a group of firefighters. The results from the study revealed that those with augmented levels of self-reported resilience resulted a reduced incidence of PTSD. Importantly, the intervention is requisite in managing overall health compared to no training.

Resiliency training encompasses various aspects and approaches. For instance, physical fitness is considered a crucial aspect of the instruction with associated improved health outcomes. A study by Silverman and Deuster (2014) recognized that personnel resilience can be realized through systematic exercise or unplanned bodily activity by encouraging positive emotional and mental benefits and decreasing stress reactivity. The training is equally crucial in protecting against conceptually detrimental behavioral and metabolic impacts of stressful events and prevention of chronic disorders. The significance of physical activity, systematic workouts, and body fitness have been studied in various occupations. Importantly, the beneficial role of training has been acknowledged for over 7000 years dating back to the prehistoric Chinese and Greek civilizations (Silverman & Deuster, 2014).

Silverman and Deuster (2014) noted scientific data elucidating the vitality of physical actions in improving health in the late 1800s and 1900s. Epidemiological studies reported that
physically inactive persons were highly vulnerable to coronary heart illnesses, as well as increasing diabetes, depression, anxiety, the rising prevalence of chronic stress disorder and behavioral stress reactions, as compared to those with physically active lifestyles. Silverman and Deuster (2014) noted that the observations are mirrored and prevalent in the firefighting unit. Firefighters engaging in physical exercise in resiliency training vary significantly from those not enrolling in the course. The efficacy of training is that the biological pathways, through which normal bodily workouts promote resilience, shields against stress and associated mental complications. Physical exercise enhances anti-inflammatory and neuroendocrine and physiological reactions to psychosocial and body stressors (Silverman & Deuster, 2014). Other crucial factors in physical exercise and resilience are improved neuroplasticity and growth factor expressions.

Digliani (2016) and Cherry et al. (2021) noted that incorporating peer support in resiliency training is effective. The construct of firefighter support psychoanalysis was introduced as a clinical aid provided by peer psychotherapists with similar involvement and experience. In most circumstances, the therapists are retired, firefighters or first responders who receive education regarding local psychological health resources, active listening skills, privacy matters and requirements, and suicide deterrence. This is consistent with the fact that most firefighters contemplate seeking help from peers regarding their challenges and concerns, and consult from within the department. In most cases, the individuals do not seek or receive support from outside professionals whom they trust because it is perceived that they are not familiar with their working environment and challenges. Digliani (2016) and Cherry et al. (2021) asserted that for such responders involved in resiliency training, the objective and mission of peer support is to assist firefighters and their kin with stress resulting from personal issues, traumatic events, and non-crisis work-related situations. The counselors lessen the negative consequences of stressors by discussing expressive and
physical reactions, listening to concerns, and assisting family members as desired. One-to-one peer support incorporated in resiliency training is important in commencing the recovery process, as opposed to no training.

Deppa and Saltzberg (2016) also examined resiliency preparation for firefighters. The authors emphasized that its success is contingent on incorporating refined realistic discernment, social support, and self-efficacy for coping. In this case, improving resiliency before, during, and after natural or artificial crises is reliant on certain approaches. Resilience is not intrinsic in individuals but entails numerous aspects that can be learned and improved upon. For instance, firefighters are trained to avoid reasoning traps by exploring problems empirically and flexibly. Similarly, counteracting adverse and unproductive reflections in real-time is vital. In such instances, firefighters are instructed how to reframe challenging thoughts with optimism, evidence, or perspective approaches. The intended goal remains to lessen destructive and non-productive reflections. Deppa and Saltzberg (2016) noted that reasonable optimistic thinking, social assistance, and self-efficacy for handling problems are vital in influencing a first responder’s capacity to experience resilience during traumatic events. Also, central to the success of resiliency training through realistic reasoning is positive self-evaluation.

Deppa and Saltzberg (2016) construed self-assessment as being the overarching trust that one’s actions possess a positive impact on others and are responsible for and can prevail over their concerns. In the context of firefighting, resilience training that improves resilient reasoning strategies and behaviors can improve coping skills and reduce the prevalence of depression. Also, the importance of communication with social support groups, coworkers, and related family members is underscored as enhancing personal resiliency during instances of augmented stress. The authors propose that the sense of community is a crucial factor affecting resiliency in first responders. Additionally, actual and perceived social support
connotes important facets for encouraging self-assurance, which ultimately increases resiliency in firefighters.

Sharifi et al. (2021) similarly studied the nature of self-efficacy in resilience preparation of firefighters. The authors believe that the skill serves as a shield and supportive psychological trait against the detrimental complications of the firefighting job. The authors observed that in most instances, the training is limited to the physical aspects of the occupation. On the other hand, Deppa and Saltzberg (2016) noted that those personnel wielding strong self-efficacy abilities, can register improved outcomes and reduced psychological stress during traumatic events. The direct link between coping self-efficacy and emotional health is acknowledged throughout the literature. The firefighters who, possess enhanced coping self-efficacy, experience improved social support, a purposeful life, well-perceived independence, self-acceptance, and positive relationships with others can successfully navigate traumatic occurrences in the line of duty.

Emotional regulation, as a construct of resiliency training, has also been examined in the literature detailing its effectiveness in improving the mental health of first responders. According to Gärtner et al. (2019), rescue personnel are predisposed to persistent emotional distress as they are potentially confronted with traumatic mission occurrences and chronic job-related stress. Specifically, they react to emergencies involving people suffering, danger, and duties that include rescuing individuals from fires, accidents, floods, or other natural or artificial disasters.

On the other hand, firefighters, as rescue personnel, are occasionally confronted (directly or witnessing) with traumatic events, such as actual or threatened death, severe impairment, sexual abuse, and serious aversive outcomes. Thus, it is crucial to regulate negative emotions to withstand the work-associated strain. Emotional regulation signifies entire processes by which persons influence their distinct emotions and how they experience
and express them (Gärtner et al., 2019). The construct involves stress handling and reducing anxiety. This is realized by utilizing learning skills to lessen undesirable effects. Emotional regulation involves learning to distinguish, label, and delineate feelings, using mindfulness, reducing susceptibility to adverse emotions, augmenting the occurrence of desirable emotions, and acting oppositely to motivational tendencies linked with negative emotions.

Moradikia et al. (2016) reported that emotion-regulation training enhances the psychological health of mothers. These observations support those of Cameron et al. (2018), who support that regulation training enhances emotional resilience and well-being of adults. Based on a review of the literature, resiliency training may benefit firefighters and first responders in dealing with the emotional distress arising from their professional encounters.

**Mindfulness Role in Resilience Training**

Resiliency training programs are largely contingent on the mindfulness construct. This concept signifies bringing one’s whole focus to the current moment and being nonjudgmental to the ongoing flow of thoughts, sensations, and emotional states (Vujanovic et al., 2022). The significance of mindfulness in resiliency training is underscored by the evidence of consistent adverse associations between mindfulness and PTSD symptoms, suicide ideation, depressive symptoms, and substance use problems. According to Vujanovic et al. (2022), mindfulness-contingent interventions show efficacy concerning numerous symptoms like depression, PTSD, and alcohol use. While only a few studies of mindfulness-based interventions focusing on firefighters have been published, firefighters in such programs, offering body awareness and connection, have reported a considerable increase in psychological resilience compared to those without training (Vujanovic et al., 2022). Thus, mindfulness will aid resiliency training by augmenting resilience creation and symptom
prevention. The concept of mindfulness in resiliency training is relevant to the PICO that accentuates the need for the program in the firefighting occupation.

Indeed, first responders’ mental challenges and resiliency intervention has been explored adequately in the literature across various settings and professions, including the firefighting department. While numerous contexts are considered in the resilience literature, most focus on developmental resilience to long-term adversity, such as reports by Sharifi et al.’s, (2021) and Denkova et al. (2020). Pertinent to firefighters who are appraised as being at high danger of workplace psychological injury is the considerable gap in the literature exploring alternative consequences to injury, such as resilience. Additionally, the firefighter’s population and context differ significantly from the developmental literature in that they signify adults leading healthy lives both physically and mentally, yet they are exposed regularly to intense short-term work-associated adversity (Deppa & Saltzberg, 2016). Articles regarding emotional resilience and mindfulness-based training run the gamut from local publications to an expansive spectrum of career-specific media sources for emergency management sectors, among others. Importantly, the topic of resilience in firefighters has been examined broadly in academia.

III. Purpose, PICOT Clinical Question, and SMART Goals

Purpose

The purpose of this DNP Project is to examine the effectiveness of a resiliency program centered around mindfulness training for firefighters/paramedics in the Miami Dade County. This project has been informed by a review of the literature and needs assessment at MDFR, which indicates a gap in addressing health measures in managing psychological health concerns within the departments. Importantly, prevailing mental health programs, like the Critical Incident Stress Debriefing (CISD), fail to offer a holistic behavioral health evaluation
for the firefighters and the Miami Dade Fire Rescue prevailing programs do not include a resiliency program for first responders in increasing positive emotional, mental, and physical outcomes. Therefore, examining the effectiveness of resiliency training for firefighters and its impact on health outcomes is significant. Exploring resiliency training for firefighters is a crucial topic backed by empirical evidence.

**PICOT Clinical Question**

The proposal is guided by the following PICOT question: For Miami Dade’s firefighters (P), what is the effect of resiliency program (I) on improving psychological well-being and resiliency scores (O) as compared to pre-intervention scores (C) in a period of 30 days (T).

**Primary DNP Project Goal: Current State in Relation to the Evidence-Based Goal**

Currently, Miami-Dade Fire Rescue (MDFR) does not have a resiliency program. Miami Dade’s Employee Assistance Program (EAP) offers free internal sessions to all employees. Still, it may require copayments for services under the referral system depending on the coverage levels (Miami Dade County, n.d.). The EAP also covers the employee’s eligible dependents and family members. Employee health programs address emotional well-being in a wide array of areas like anxiety or emotional problems, financial problems, anger management, community resources, stress management, marital and family problems, and substance or alcohol abuse. In most cases, individuals voluntarily request services however, managers and directors can make mandatory referrals to the EAP program for employees with substance abuse issues and other critical circumstances.

The Critical Incident Stress Management (CISM), peer support, and chaplain services are crucial sources for spiritual, emotional, and psychological support. The CISM program
offers a direct intervention to firefighters within the MDFR to help them cope after dealing with significant traumatic events to minimize resultant stress-related problems. One of the objectives of the CISM program is to build the resiliency of workers through raising awareness, training, and educational activities. Also, the program utilizes certified peers to deliver timely interventions within two hours of a call-out request and works in partnership with the clinical community to provide further counseling or follow-up professional services to groups or individuals. The peers work directly with individuals or in group sessions. Critical incidences that warrant CISM resources include suicide or death in the line of duty, serious injury, traumatic death of personnel’s children, multiple casualty incidents, or victims with serious injuries known to the employee (Taylor, 2021). The MDFR Chaplaincy program delivers pastoral care. Individuals can seek these support services by reporting to their supervisor or Team Leader or the Fire Alarm Office (FAO). CISM Response Team Leaders have enough aptitude and experience to coordinate Team call-outs and deliver interventions.

Despite the value of these programs for supporting worker well-being across multiple dimensions, there are currently no continuous firefighter support programs that build self-awareness on mental health and resiliency. Contrary to existing MDFR programs, the goal is to establish a self-efficacy resilience program that addresses mood modulation, mental wellbeing, and sleep hygiene, as well as self-care, mindfulness, and shift schedule adjustments. Offering of these programs and staff attendance is necessary in helping employees respond to traumatic events. The proposed self-awareness resiliency program will help reinforce behavioral and mental health outcomes by promoting affected persons’ coping skills and building mechanisms for firefighters to deal with negative thoughts, emotions, and experiences (Schaefer Solle et al., 2018). Mandating employee attendance to these programs
will be instrumental in raising self-awareness and result in reduced signs and symptoms of acute stress disorder.

**SMART Goals**

The DNP Project’s goal is to develop a resiliency program for Miami-Dade Fire Rescue to significantly impact the psychological well-being and resiliency among firefighters. First, the program will comprise a 12-step program offering support group services. The goals of this DNP Projects are designed to address the following outcomes:

1. Reduce substance use
2. Improve emotional fatigue
3. Improve sleep
4. Increase positive self-talk
5. Foster self-awareness
6. Raise awareness of mental health
7. Create a team of mental health professionals to respond immediately to personal and professional challenges such as a death of child, mass casualty incidents, drowning, and death while in the line of duty.
8. Improve mood modulation

**IV. Organizational Assessment and SWOT Analysis**

MDFR progressed as a sole-unit fire patrol in 1935. The institution has urbanized into one of the topmost ten leading fire rescue divisions in the United States with a yearly operational financial plan of $585.3 million (Miami-Dade County, 2021). The unit is staffed by 2,725 personnel of which 2120 denote uniformed firefighters. The division has 71 fire-rescue stations within autonomous Miami-Dade County and attends to various municipalities.
These include Sunny Isles Beach, North Miami, West Miami, Miami Springs, Opa-Locka, Florida City, Miami Shores, Aventura, Cutler Bay, Homestead, Miami Shores, Golden Beach, Biscayne Park, Sweetwater, North Bay Village, Doral, Palmetto Bay, Virginia Gardens, Bal Harbour, Medley, Bay Harbour Islands, El Portal, Indian Creek, Surfside, Pinecrest, Hialeah Gardens, Miami Gardens, Miami Lakes, and North Miami Beach (Miami-Dade County, 2021). The unit similarly offers aero-medical transport amenities within the county to state-sanctioned trauma centers and related medical establishments. MDFR’s air rescue helicopters are equally employed to undertake search and rescue missions, and reconnaissance and firefighting operations incorporating large occurrences like wildfires.

In its extensive stretch of ground around 1904 square miles, the division engages 14 divisions which supervise the workers enlisted in 154 rescue, conquest battalion, and specialty divisions working 24 a day, seven days a week. The personnel provides emergency amenities to more than 1.9 million residents and non-residents. MDFR responded to more than 245000 emergencies, 74 of which were medical during the financial year 2019-2020 (Miami-Dade County, 2021). Apart from the traditional services offered by a dire and rescue unit, MDFR has been instrumental in providing numerous distinct services like the ocean, air, maritime fire, urban search, and technical rescue among others. The division’s service location is positioned in Port Miami and three airfields comprising Miami Executive Airport (TMB), Miami Opa-Locka Executive Airport (OPF), and Miami International Airport (MIA). MDFR’s office of emergency management (OEM) strengthens its community adversity readiness, rescue, reaction, and mitigation requirements related to adversity.

Miami-Dade Fire Rescue (MDFR) has programs for assisting staff, such as the Employee Support Services, Critical Incident/Stress Management (CISM), Chaplain Services, and the Peer Support Program. These support programs are under the Department’s Emergency Medical Services Division. The Employee Support and Community Assistance
(ESCA) unit create and oversee compassionate outreach missions for all division personnel (Miami-Dade.Gov., 2019). The department’s employee support services head the peer support program which signifies a confidential service focusing on aiding employees who are struggling with personal problems that might be impacting their capability to function effectively at home, work, or in the community. This program concentrates on supporting workers with internal and external referrals and resources. The move serves to create the basis for restoring or augmenting emotional and psychological health. On the other hand, CISM works to assist fire rescue staff who are suffering from or predisposed to emotional stresses that impact their health and performance. CISM, peer support, and chaplaincy have enabled the cultural shift for firefighters to seek help (Miami-Dade.Gov., 2019). They provide emotional, spiritual, and psychological support during large-scale community incidents.

However, current MDFR support programs are not holistic and leave gaps that contribute to exacerbated behavioral and mental health outcomes. Evidence supports the significance of a resiliency program for first-line responders, like firefighters, in improving mental, emotional, and physical outcomes. Resilience training among firefighters will improve their capability to handle workplace stress and disorders and helps firefighters achieve more self-control and emotion regulation. Firefighter resiliency programs improve the worker’s well-being and productivity levels even in the face of adversity.

If CISM or other support services are not adequate for an employee, they will receive a referral to a psychiatrist for comprehensive treatment. The type of care employees receive is based on the severity of their conditions. Employees can be recommended for specialist care to relieve mental illness symptoms or less intensive care, aiming to improve their quality of life (Beckers et al., 2018). Therefore, the referral programs involve an initial diagnosis to determine the level of care they need and how the organization can support their recovery or quality of life. Furthermore, research suggests that while behavioral gains are easily achieved
by employee wellness programs, changes in clinical outcomes are harder to achieve (Song & Baicker, 2019). Therefore, the program will be sensitive to additional clinical concerns other than behavioral issues. Kim et al. (2018) report that firefighters with higher severity of PTSD symptoms and significant functional impairment were more likely to seek treatment outside of support programs. On the other hand, Kim and colleagues (2018) also found that more significant functional impairment and symptom severity were more likely to raise concerns about stigma. These findings also reveal that wellness and resilience programs for firefighters should encourage further care-seeking behavior among firefighters with severe serious physical and psychological injury after their traumatic experience. Organizational climate should also be more supportive for individuals with PTSD to avoid stigmatization.

**Stakeholders**

The project has been supported by a distinctive group of organizational stakeholders. In the context of management, the stakeholders connote persons, groups, or establishments that exert a direct interest in the success of the organization in fulfilling its mission. The MDFR stakeholders fall into internal and external categories. The former denotes individuals, organizations, or groups within the Miami-Dade public safety community who partake in or depend on the fire department’s delivery of emergency services. These comprise the unit’s members and elected and appointed officials. On the other hand, the external stakeholders signify persons who live in, work in, and travel through the fire district. It also represents the establishments working within the county. The stakeholders depend on and wield expectations regarding fire protection amenities offered by the MDFR.

Through comprehensive stakeholder analysis, the MDFR may distinguish the numerous stakeholder groups it serves and their expectations concerning fire protection and related services offered. In most cases, both the internal and external stakeholders expect
completeness, consistency, convenience, courtesy, accessibility, and efficiency. Others include professionalism, safety, responsiveness, and timeliness. The department has emphasized various strengths that aid in its service delivery. Unfortunately, the MDFR encounters several distinct challenges in meeting the expectations. However, opportunities still exist in guiding the department to successful accomplishments. This will transpire against a backdrop of threats.

Program Structure Description

The program structure entailed continuous participation by MDFR personnel in the Resiliency program. This DNP Project was supported by the Miami-Dade Fire Rescue Health and Safety Division, whose emphasis is on enhancing individuals’ awareness, safety, and responsibility and adhering to the policy and regulatory requirements. Therefore, a program was important which broadens the scope of support services to create a resilient workforce works in the best interest of the MDFR, whose motto is Always Ready, Proud to Serve. The primary mode of the DNP Project delivery was face-to-face interactions. While analyses report higher efficacy for face-to-face than computer-delivered modes, the program allowed for computer-based delivery as alternatives to give employees a sense of control and increase their willingness to participate in a mandatory program (Peterson & McCleery, 2016). The resiliency training was intended for 30 days. The key concepts included emotion regulation for adaptive functioning (Sharifi et al., 2021). It similarly focused on mind control and enhancing personality and psychological characteristics. Authorized and qualified emergency responders guided the program, and teaching strategies included teams. The teaching was delivered through online educational seminars which necessitated personnel to attend four classes weekly.
SWOT Analysis

A SWOT investigation offered a rationale where MDFR can openly distinguish its positive and adverse attributes.

Strengths

It is indispensable for any establishment to distinguish its strengths to assure its stakeholders that it can offer the services requested by the community and guarantee that its powers are consistent with the department’s issues. A stakeholder analysis revealed numerous strengths.

- MDFR has an established foundation dealing with employees’ mental health. Since 1989, the department has instituted a robust proactive measure for PTSD through peer support programs (Miamidade.Gov., 2019). It has pre-existing programs like peer chaplaincy, and K9 crisis response.

- The department has cultivated a solid reputation that has evoked public confidence through good communication with strong leadership, relationships with regional partners, and committed retirees that partake in peer support tasks. As a result, they can operate and steer missions without much interference.

- The department is compassionate to employees. This is characterized by commitment to personnel safety and offering them training courses to deal with everyday challenges. These measures aid workers in their overall welfare which is crucial for the department.

- The MDFR has a group of dedicated employees working tirelessly to realize the mission goals, including a commitment to overtime to meet the Department’s needs.
Weaknesses

Performance or lack thereof within the fire department relies significantly on identifying and managing deficiencies. For an establishment to progress effectively, it is requisite to distinguish areas needing enhancements. Various weaknesses have been highlighted at the MDFR.

- The services provided by the department are usually labor-intensive and sometimes intangible. It depends heavily on volunteers. The move leaves the employees emotionally and physically exhausted, affecting their health and overall performance.

- While substantial advancement has been made concerning psychological health cognizance, training, and learning in the fire division, firefighters’ emotional wellbeing and PTSD remain taboo themes (Miamidade.Gov, 2019). As a result, it has occasional underreporting of difficulties and the gathering of accurate data for interventions.

- Programmatic changes owing to retirements, limited funding for programs, accountability concerns, lack of direction, cultural buy-in from sector-stigma, and limited awareness of programs are threats. Other concerns include person driven versus system-infrastructure challenges, frail communication and association with union in mental health problems and slow bureaucratic process.

Opportunities

The emphasis on opportunities is not merely on existing services but expanding and advancing novel possibilities inside and beyond the traditional working area. An investigation of strengths and weaknesses discloses several prospects.

- Employee resiliency program: Training personnel on resiliency is delineated as a crucial approach. The training can instruct firefighters on the pertinent skills for
adapting and returning to pre-crisis status. Others include cross training of staff to reinforce peer support missions, public consciousness of mental health, and relationships with political leaders and flexibility.

- Improving the physical fitness program as a mental health modality for first responders, such as a physical workout which augments psychological health and resilience (Silverman & Deuster, 2014). The measure could be vital in reducing the rate of PTSD and suicide among firefighters.

**Threats**

The threats to the fire department should also be identified to effectively avert weaknesses and realize the full benefit of any opportunity. Some of the current and potential threats facing the MDFR include;

- Negativity of some employees: Negative attitudes towards work culture risks the overall health of needy firefighters and MDFR’s performance in general. Some employees perceiving others as weak when they seek mental health poses a threat to the organization.

- Injuries and mental health: Firefighters are predisposed to disaster incidents like wildfires that may leave them injured. Others like accidents can upset their emotional health wielding adverse implications on their performance.

- Rising operating budget and funding of programs owing to political changes: The department's $585 million adopted for 2020-2021 is 2% higher than the preceding year (Miami-Dade County, 2021). The rising budget may compel the department to scale back on its operations.

- Loss of departmental headship in the later years, uncommitted stakeholders, inflexibility of program visions, and resistance to changes owing to stigma pose a
potent threat to the department. Others include unknown system performance owing to merging threat scenarios and health crises like the Covid-19 pandemic.

<table>
<thead>
<tr>
<th>SWOT Analysis of Miami Dade Fire Rescue</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths (Internal)</strong></td>
</tr>
<tr>
<td>- Support programs for dealing with mental health.</td>
</tr>
<tr>
<td>- Robust reputation.</td>
</tr>
<tr>
<td>- Compassion to workers.</td>
</tr>
<tr>
<td>- Good communication with immediate leadership.</td>
</tr>
<tr>
<td>- Dedicated personnel and committed retirees.</td>
</tr>
<tr>
<td>- Robust relationships with regional partners.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Opportunities (External)</strong></td>
</tr>
<tr>
<td>- Employee resiliency program and cross training.</td>
</tr>
<tr>
<td>- Public awareness of mental health.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>• Improving fitness through mental health modalities.</td>
</tr>
<tr>
<td>• Flexibility.</td>
</tr>
<tr>
<td>• Expanding relationships with leaders.</td>
</tr>
</tbody>
</table>

**Conclusion**

The Miami-Dade Fire Rescue (MDFR) has supportive programs but does not have a specific resiliency program for mental and behavioral outcomes. Introducing a resiliency program to the MDFR in addition to the EAP and CISM was necessary to ensure that the employees get holistic support to build resiliency. Moreover, the program equips the workers to build capacity before dealing with traumatic events. Therefore, a resiliency program is more effective because it is not only reactionary but also empowers individuals to build capacity before they face traumatic events. Some outcomes that the program were anticipated to improve include sleep hygiene, mood modulation, and mental health status. The goals comprised educational and training opportunities to improve resiliency, reduce substance abuse, disorders emotional fatigue, improve awareness, positive self-talk, and coping skills among the firefighters within six months. The program structure emphasized continuous training, collaboration with existing CISM personnel, and referral for more complex cases to healthcare professionals. The theoretical framework underpinning the intervention recognizes the value of optimistic thinking, social support, and self-efficacy in coping for building resiliency. Therefore, resilient firefighters in Miami-Dade may show better mental, spiritual, and behavioral outcomes in the long term.
V. Definition of Terms

**First Responders:** Individuals who respond to crises, disasters, or accidents. They are specialists who handle crises, such as natural disasters and emergency events (Crowe et al., 2017).

**Firefighter:** An individual that doubles as a first responder and rescuer, and is first to reach the scene of an emergency, disaster or accident, encountering dangerous, challenging and tiresome instances to preserve and safeguard life, property and the surrounding (Lowery & Cassidy, 2022).

**Paramedic:** Usually, the individual denotes a registered healthcare expert who functions independently across health and care milieus but is not a doctor or a nurse (Eaton, 2019). In most instances, such a person wields specialty in clinical practice, research, leadership and education.

**Resiliency:** Described as the aptitude to organize and acclimate to diverse circumstances and endure, react to, and recuperate fast from interruptions (United States Environmental Protection Agency, 2015).

**Psychological Well-Being:** A core construct of emotional health and described as comprising hedonic and eudaimonic delight and resilience (Tang et al., 2019). It is similarly an intricate concept that regards optimal psychological functioning and experience.

**Self-efficacy:** A person’s perceived ability to handle stressful or traumatic occurrences (Sharifi et al., 2019).

VI. Conceptual Underpinning and Theoretical Framework of the Project

The project’s conceptual framework delineates resiliency as a crucial factor in the context of first responders during traumatic incidents. Resiliency is demarcated into two attributes.
First, the person should successfully face crises without succumbing to their pressures. Secondly, the individual needs to wield the requisite skills, resources, and character to overcome psychologically stressful experiences. Social backing, optimism, and self-efficacy for coping signify the foundation of the resiliency construct since they provide the person an edge and the ability to overcome adversity more effortlessly and effectively. In the context of firefighters, positive self-assessment denotes the most crucial concept in optimistic reasoning. Peer assistance programs provide social backing for the commencement of healing but refer the individual to expert care whenever necessary. Importantly, social solid bonds aid augment resilience. Conceptual models in resiliency training bring a mutual meaning to the basic concepts of firefighting. The model is recommended as a guideline in the occupation.

The Neuman Systems Model (NSM) is appropriate for guiding the firefighting resiliency training in providing a systems-founded comprehensive conceptual framework and offering a holistic standpoint (Bademli & Duman, 2017). The key concepts underpinning the model include the client, environment, and health. The client is contingent on the fact that it applies equally to the individual, family dyad group, and population or community at risk (firefighters). Within the client’s framework, the terminology of the system is employed to facilitate the definition. The environment is construed as being external and internal, with varying levels of harmony and balance between the two. The construct offers a framework to formulate a firefighters’ population assessment according to socio-cultural, psychological, spiritual, and developmental variables. Lastly, Neuman refers to wellness instead of health and views the former and illness as qualitatively different yet interrelated concepts (Bademli & Duman, 2017). This is in upholding the standpoint that health does not signify an ideal state that individuals may attain but a continuum where individuals can be placed differently at varied times.
According to Bademli and Duman (2017), the NSM is a dynamic framework that guarantees a systems-based holistic outlook and is founded on the protection of environmental factors regarding the system, oriented to the wellness state and the system balance. The NSM concentrates on the types of stressors that cause stress to an individual’s well-being and health (Turner & Kaylor, 2015). The model reveals a comprehensive conceptual structure linked to stressors, reactions provided against stressors, and protective interventions. In this context, stressors signify the potential warnings that cause the stress that might disrupt the firefighter’s system’s balance. Everyone gets exposed to numerous stressors that threaten their system in their lifetime. Stress can produce a disruption or discrepancy in one’s harmony and necessitates management. Defense methods counter stressors to thwart them from getting to the chief energy source (Bademli & Duman, 2017). Life is endangered when the defense mechanisms are affected. The protection lines in the NSM inhibit stressors from reaching the rudimentary structure. Most stressors are universal and sometimes disrupt the firefighters’ systems resulting in emotional and social crises or physical illness.

From the NSM, different stressors impacting firefighters can be outlined in the three-dimensional structure of intrapersonal, interpersonal, and extrapersonal spheres. Firefighters’ tasks may be regarded as stressors or the source of stress in the firefighting experience. The firefighters’ distinct perception of whether a task is challenging can make a difference in their first responder experience. The typical intrapersonal stressors among firefighters comprise a lack of knowledge regarding suicide, the existence of risk factors for suicide and substance abuse, and decreased help-seeking behaviors. Empirical evidence reveals that through constant and traumatic occupation-related exposures, firefighters are at an increasing danger of developing stress-related conditions like PTD, depression, hopelessness, and maladaptive coping mechanisms like substance-associated disorders all of which lead to suicidal ideation (Stanley et al., 2016). The fire department’s culture is observed to be generally dominated by
a male machismo that appears to perceive mental and psychological health as susceptibility or indication of possible weakness. The culture perpetuates a stigma around psychological well-being that acts as a hindrance to the promotion of health-seeking behavior among firefighters.

On the other hand, firefighters’ interpersonal stressors center on social support frameworks, demanding work schedules, and conflicting roles and relations within and among the family unit, the society, and the department (Carpenter et al., 2015). In this context, social support is described as the view or experience that one is cared for, valued, and part of a mutually profitable social network. The availability of adequate social backing has been delineated as one of the strongest protective constructs against suicide and suicidal behaviors. Conversely, social isolation is a strong reliable predictor of suicidality across the lifespan of firefighters (Carpenter et al., 2015). Firefighters can experience interpersonal relationship stress owing to unconventional work schedules and challenges upholding work-life balance (Stanley et al., 2016). The pressure can lead to firefighters’ moods of disillusioned belongingness. Lastly, extrapersonal stressors entail those distinct from the occupation. Since the department has changed considerably within the preceding decades, there have been stressful work settings. The extra personal stressors include psychological strains experienced during duty, increased workload, extended hours, and fragmented sleep among others.

In addition, the model adequately offers a holistic approach to personnel and guides the resiliency training program as it encompasses the physiological, spiritual, psychological, socio-cultural, and developmental variables of individuals through its open system features. The model is observed to strengthen the handling of stressors in the workplace for firefighters. The disposition of the workers to react to stress and hardship, and endure after becoming predominantly active in demanding instances are hopeful and multidimensional
resilience adaptations affected by distinct variables like familiarity and devoutness. The model offers a framework for comprehending the notion of adversity by delineating the link between parts and whole, the impacts of circumstances, and the client’s contact with their environment (Hannoodee & Dhamoon, 2021). Within the theory’s outline, proper doctrines and propositions that help explain the reaction of the client classification to the environment may act to theoretically develop the client system in all spheres. In the process, it aids to achieve a higher degree of well-being and health.

NSM shows that the intensity and frequency of the disasters and crises and their consequent impacts such as property loss, grief, acute stress, and disruption of a social network may result in psychological health conditions like PTSD. In this regard, firefighters are increasingly predisposed to emotional complications owing to constant exposure to traumatic occurrences. When training managers understand the association between the individual and the environment, they may offer improved decisions and provide assistance that is specific to the firefighters and which improves health.

Similarly, apart from resilience, the NSM is also related to mindfulness training. In this context, mindfulness follows Vujanovic et al’s. (2022) delineation of the concept as bringing an individual’s entire focus to the current moment and taking a nonjudgmental stance to the ongoing flow of thoughts or sensations. Individuals with improved mindfulness generally demonstrate a greater level of resiliency in the face of adversity. Indeed, mindfulness leads to resilience. Mindful individuals may properly manage problematic contemplations and emotions without being overcome. Importantly, the concept weakens the chain of associations that retain people obsessing regarding their problems or failures. Hannoodee and Dhamoon (2021) noted that the NSM may guide the strengthening of stress management in the workplace. In the study of mindfulness and resiliency, the model offers the framework for understanding the idea of adversity. It guides various ideologies and hypotheses that help
clarify the reaction of the client system to the milieu and endorse tactics to attain optimal wellbeing. Importantly, the NSM helps in the understanding of the association between the individual and the environment which underscore the role of mindfulness and resilience training in firefighters. In summary, the NSM model relates to the study of resiliency and mindfulness since they are all connected to the stress factors that may harm the wellbeing and health of an individual. By offering a step-by-step guide, the model ensures that the concept of mindfulness is incorporated into resilience training for the overall benefit of firefighters. It is similarly crucial since it demonstrates that the training is founded on evidence.

VII. Methodology

Introduction of QI Methodology (PDSA)

Quality Improvement (QI) methods are extensively employed in various settings, including emergency response. A key approach is the Plan, Do, Study, Act (PDSA) cycle, which denotes a 4-stage repeating process that evolved from the work of American statistician Edward Deming (Chen et al., 2021). PDSA framework determines when an intervention positively accomplishes its objectives or whether it is ineffective. According to Reed et al. (2016), the PDSA method connotes one of the core QI tools focusing on the crux of change. The approach emphasizes evolving interventions and evaluating their positive implications on the study participants while adjusting them accordingly. The PDSA cycle ensures an increase in the likelihood of delivering and sustaining the desired improvement or stopping the intervention and adopting other measures (Reed et al., 2016). The PDSA cycle is not a stand-alone QI approach but offers a central component to mainstream QI methods, like total quality management (Reed et al., 2016). In attaining incremental progress, the PDSA model was designed to rapidly and effectively pilot novel ideas in a structured manner using data in iterative cycles (Chen et al., 2021). The QI technique is embraced irrespective of
practice scope or resources. As ongoing quality improvement becomes a construct of firefighters’ culture, using the approach enables new opportunities to augment existing processes.

**Plan Phase**

The planning phase is the first and core step in the PDSA cycle. According to Chen et al. (2021), the stage must be allocated adequate resources and time. Comprehensive and careful design averts wasted cycles and determines the final quality and success of the QI project.

**Study Design**

The DNP project was a pre-test and post-test design to measure how the resiliency program improves firefighters' psychological well-being and resiliency. The use of the design is widely acknowledged in the psychological intervention domain (Alessandri et al., 2017).

**Setting**

The QI project was undertaken at the Miami-Dade Fire Rescue Department. The department is tasked with offering emergency medical amenities and fire protection to over 1800 square miles of Miami Dade County.

**Sample**

The QI project was a convenience sample of 10 to 12 sworn firefighters or paramedics of the Miami-Dade Fire Department. The recruitment occurred through the distribution of a flyer sent to the selected personnel via email where possible participants confirmed their enrollment. The selection criteria ensured that the participants were sworn firefighters or paramedics, aged 22 to 55, with a working computer or phone with zoom capability to participate in the four meetings, and had a proficient understanding of the English language. Those failing to meet the criteria were excluded.
**Intervention**

The intervention was an in-service training to increase firefighter’s and paramedic’s resiliency. The intervention involved four 30-minute weekly sessions via zoom. The intervention covered various aspects of resiliency training, including mindfulness of the breath, current emotions, mind, and communication. The intervention also included discussions, four PowerPoint presentations, videos, and experiential exercises in the distinctive mindfulness module. In all four PowerPoint Presentations, discussion questions were knowledge based and not emotionally based. The discussion questions were more focused on knowledge related to resiliency, not on the emotional aspect for the participant to share their feelings. At the end of each Educational Seminar, time was allotted for any questions or clarifications regarding the material.

**Instruments**

A Demographic and Professional Data Form was completed via email to assess such variables as age, gender, nationality, education, service years, and professional role in the department. The Brief Resilience Scale (BRS) was administered to assess resiliency and includes both positively and negatively phrased items. BRS denotes a brief, single-factor instrument enshrining 3 positively phrased items and 3 negatively articulated ones to reduce response bias (Kyriazos et al., 2018). It yields reasonable psychometric aspects and internal constancy and dependability. It reveals improved post-test scores after intervention.

The QI project also employed the Positive and Negative Affect Schedule (PANAS) survey which is a self-report to evaluate positive and negative affect. In PANAS, augmented PA scores demonstrate full focus, pleasant engagement, and improved drive. Low scores of PA show lethargy and sadness. NA includes a range of unpleasurable engagement and subjective distress (von Humboldt et al., 2017). Low NA levels reveal tranquility and calmness. The
measure reveals a strong informed validity with such measures as general grief and
dysfunction, sadness, and state anxiety.

**Data Collection, Management, and Protection of Human Subjects**

Following the signing of online informed consent, participants completed a
Demographic and Professional Data Form administered using Qualtrics, as well as the BRS
and PANAS as the pre-test instruments. Following the resiliency training program, the BRS
and PANAS were administered through Qualtrics as post-tests. All study data was secured in
a password protected computer in the locked office of the DNP Candidate.

The QI project guaranteed the protection of human subjects as individuals were made
aware through an online informed consent that their participation was voluntary and they had
the right to withdraw from the program anytime without adverse implications. No personal
identifying information was included in any of the study instruments as code numbers were
assigned to participants. Only the DNP Candidate was able to match the name of a participant
with the code number which was kept in a data manual in the locked office of the DNP
Candidate. Only the DNP candidate had access to the information. The data collected will be
destroyed immediately following the end of the study.

**Data Analysis**

Descriptive statistics was utilized to analyze the Demographics and Professional Data.
In addition, paired t-tests for obtaining p-values was used to compare pre and post-test scores
on the BRS and PANAS. The data from both surveys was uploaded onto GraphPad from the
DNP candidate’s password protected laptop.
VIII. Results

Demographic and Professional Data

Eleven participants were recruited for this study. Participants were from Miami Dade Fire Rescue. The demographic and professional data examined included gender, age, ethnicity, education, rank, years of service, and physical health. Of the 11 participants in the study, 8 (72.7%) identified as male, and three (27.3%) identified as female. Gender was a vital demographic factor to attain the required outcomes. This is owing to gender-based intricacies which affect training and coping mechanisms (O’Toole et al., 2022). The majority of the participants were within the age range of 45-55 (54.5%), followed by four in the 35-44 (36.4%) age range, and lastly one participant in the 18-24 (19.1%) age range. Five participants (45.4%) identified their ethnicity as Caucasian, three (27.3%) identified as Hispanic, two (18.2%) identified as Asian, and one (9.1%) identified as African American.

Another crucial demographic construct included education. Usually, job-related competency is contingent on education and is a set of measurable performance traits, like knowledge and skills that occasion satisfactory performance (Heydari et al., 2022). In the study, out of the 11 participants, those that had accomplished a college graduate education were 6, signifying 54.6% while those that had attended some college were 4, representing 36.4%. On the other hand, only one participant verbalized having a high school education, signifying 9.1%.

Rank was similarly a critical demographic variable considered in the study. Resilience varies across ranks since each conveys a different level of responsibility and challenges. Importantly, it demonstrates areas of risk and resilience. In the study population, those in the ranks of firefighter and paramedic at MDFR were 5 representing 45.4% respectively. Those in the rank of lieutenant and captain were 4 and 2, signifying 36.4% and 18.2%. The majority of the participants had more than 10 years of experience working at Miami Dade Fire Rescue.

Lastly, the population was classified according to physical health. Heydari et al. (2022)
delineated the concept as having no acute or chronic disorders, or a history of both, or medications in the preceding six weeks. This feature is important since in the years following entry, the physical fitness of firefighters declines, affecting their capacity to react to increasing physical demands of firefighting and predisposing them to short and long-term problems with mental and physical wellbeing (Sharp et al., 2022). In the study participants, the personnel rated mixed reactions to their physical health. 2 indicated their health as excellent representing 18.2%. The same was for 2 participants rating their health as good and 2 others as terrible. The majority of the personnel (4) described their physical health as average representing 36.4% while only 1 participant rated it as poor, representing 9.1%.

Table 1. Demographic and Professional Characteristics of Participants

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender (n=11)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>72.7%</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>27.3%</td>
</tr>
<tr>
<td><strong>Age (n=11)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>1</td>
<td>9.1%</td>
</tr>
<tr>
<td>35-44</td>
<td>4</td>
<td>36.4%</td>
</tr>
<tr>
<td>45-55</td>
<td>6</td>
<td>54.5%</td>
</tr>
<tr>
<td><strong>Ethnicity (n=11)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian or Asian American</td>
<td>2</td>
<td>18.2%</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>3</td>
<td>27.3%</td>
</tr>
<tr>
<td>White or Caucasian</td>
<td>5</td>
<td>45.5%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>1</td>
<td>9.1%</td>
</tr>
<tr>
<td><strong>Education Level (n=11)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Graduate</td>
<td>6</td>
<td>54.5%</td>
</tr>
<tr>
<td>Some College</td>
<td>4</td>
<td>36.4%</td>
</tr>
<tr>
<td>High School</td>
<td>1</td>
<td>9.1%</td>
</tr>
<tr>
<td><strong>Current Rank at MDFR (n=11)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firefighter/Paramedic</td>
<td>5</td>
<td>45.4%</td>
</tr>
<tr>
<td>Lieutenant</td>
<td>4</td>
<td>36.4%</td>
</tr>
<tr>
<td>Captain</td>
<td>2</td>
<td>18.2%</td>
</tr>
<tr>
<td><strong>Years at MDFR (n=11)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 yrs</td>
<td>1</td>
<td>9.1%</td>
</tr>
<tr>
<td>5-10 yrs</td>
<td>1</td>
<td>9.1%</td>
</tr>
<tr>
<td>10-20 yrs</td>
<td>3</td>
<td>27.3%</td>
</tr>
<tr>
<td>20-30 yrs</td>
<td>3</td>
<td>27.3%</td>
</tr>
</tbody>
</table>
Pre- and Post-Intervention Results of BRS and PANAS

The surveys completed by the participants were the Brief Resilience Scale (BRS) and Positive and Negative Affect Schedule (PANAS). Both surveys were given pre and post intervention. To analyze the data, the pre and post intervention surveys were inputted into GraphPad. A two-tailed paired samples t-test was performed. The results are shown in Table 2 and 3.

Table 2.
Two-Tailed Paired Samples t-Test Results for Brief Resilience Scale

<table>
<thead>
<tr>
<th>Pre-Intervention</th>
<th>Post-Intervention</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>74.73</td>
<td>3.72</td>
<td>86.36</td>
<td>4.08</td>
</tr>
</tbody>
</table>

Note. $N = 11$. Degrees of Freedom for the $t$-statistic = 10

The results from two-tailed P value is less than 0.0001. Ideally, this is an extremely statistically significant value by convectional criteria. In addition, the confidence level mean of Pre-BRS minus Post-BRS equals-11.64. This signifies a 95% confidence of this difference, from -14.63 to -8.64. It is important to note the intermediate values employed in calculations which were $t$=8.6613, df= 10, and a standard difference error of 1.343.

Table 3.
Two-Tailed Paired Samples t-Test Results for Positive and Negative Affect Schedule

<table>
<thead>
<tr>
<th>Pre-Intervention</th>
<th>Post-Intervention</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>63.09</td>
<td>12.11</td>
<td>86.91</td>
<td>6.49</td>
</tr>
</tbody>
</table>

Note. $N = 11$. Degrees of Freedom for the t-statistic = 10
The PANAS results also reveal statistically significant P values of less than 0.0001. The mean of Pre-PANAS minus Post-PANAS was -20.82 with the confidence level at 95% at an interval from -26.76 to -14.88. The intermediate values utilized in the calculations were $t=7.8097$ and $df=10$.

IX. Discussion

The study aimed at establishing the impact of resiliency programs on improving the mental well-being and resiliency scores of firefighters. Various insights can be deduced from the project. Firefighters are a critical population in the lives of the American public, particularly in their time of need. The occupation is increasingly stressful since the personnel are predisposed to most stressors. As a result, firefighters are likely to develop mental instability despite their efforts at remaining physically active. Key disorders common in the personnel include PTSD, depression, anxiety, and substance abuse. These illnesses have almost near identical etiologies which are stressful and traumatic experiences. Literature has delineated firefighting as an inherently dangerous profession. The range of emergency calls can predispose the staff to increased psychological distress and negative health outcomes. Another finding from the literature is a lack of support acerbated by workplace culture. Usually, firefighters are considered strong and highly effective personnel. As such, the public will hardly acknowledge them as being psychologically or physically weaker when responding to their needs. In addition, the firefighting workplace culture appears to discourage health-seeking behavior with most workers fearing being labeled as weak. These individuals develop self-coping mechanisms inform of substance abuse which also affects their personal lives and that of their close relatives. In other instances, firefighters result to suicide when the psychological and physical negativity of the career overwhelms them.
In light of the presenting challenges and the critical role played by firefighters in society, the concept of resilience training has been explored in a range of literature. The findings reinforce the assertion that indeed, firefighters are predisposed to developing psychological and physical conditions owing to the stressful nature of their work. Resilience is a critical construct to evade negative outcomes. Resiliency training has been linked to various benefits. For instance, it helps with stress management in dire instances. The concept has been observed to work in the confines of risk and safety measures where the dangers are the quantifiable personality traits that usually cause maladjustment. These factors increase the firefighters’ likelihood of having mental, emotional, and behavioral problems. In the same category, safety measures are factors that protect the first responders from the identified threats. Resilience has been identified as a crucial concept that moderates the link between personnel’s quality of life and their engagement with mental disorders. This is achieved by enhancing first responders’ views of stress and helping them overcome the challenges of developing mental disorders like PTSD. Undoubtedly, the concept helps to maintain psychological well-being in a mediative role. The benefits associated with resilience in firefighters have laid the basis for developing a training program for firefighters and first responders.

Here, for the resiliency training program to be effective, it has to include critical concepts like emotion regulation training. This strategy is crucial in enabling adaptive functioning. The training feature teaches firefighters crucial abilities for adapting and returning to the initial state they were before the crisis or disaster. Another concept of the training includes self-efficacy which has been deemed vital in the ability to explore, manipulate and influence the environment. The attribute enables firefighters and first responders to have the required confidence and conviction to operate in a way that guarantees desirable outcomes. In the personnel, self-efficacy acts as a buffer and supportive emotional
strategy against the undesirable effects of firefighting. Through self-efficacy, the personnel can effectively plan, act, and actualize their objectives.

Resiliency training also entails self-awareness which works to improve resilience so that individuals can ‘bounce’ back from the challenges present in their lives. The concept entails understanding strengths and weaknesses and relies on cognition to moderate the resilience process and guarantee success. The training program also inculcates resilience through control and increasing personality and emotional characteristics. The study has delineated physical fitness as another vital facilitator of resilience training in firefighters. Exercise is a crucial activity for enhancing positive and mental outcomes by reducing stress reactivity. Mindfulness is also an important construct in the resiliency training program. With this concept, firefighters are trained on concentrating on the current moment and being nonjudgmental. The focus on body awareness and connection improves resilience and assists in preventing mental conditions. Thus, owing to the nature of the firefighting and first responder career, the role of resiliency training is imperative.

Resilience is a fundamental safety construct against the advancement of debilitating psychological health illnesses in firefighters and other first responders. Available literature proposes that a resiliency training program is a promising measure to bolster resilience in the target population. The present study corroborates and extends prior studies by revealing that resiliency training is linked with an increase in self-reported resilience when compared to non-training conditions. Only a few studies on firefighters have previously explored the impact of a resiliency program on the mental welfare of personnel. Owing to the significance of resilience in firefighters and first responders, literature has delineated various ways to inculcate it in the personnel. Developing a workplace culture of preparedness and resourcefulness in challenging situations is critical.
X. Limitations

The study informs and expands past research by incorporating a well-matched, active-control training program, considering objective cognitive measures, and exploring the practice effects of resilience training in firefighters and first responders. Nonetheless, the study has various limitations. As a longitudinal intervention, it was challenging to continue to engage participants so that they would complete the study’s post-test.

A second limitation of the current project was that given the short time till study completion, there was an inability to track the lasting effects of the resiliency training program. Past studies in first responders and paramedics suggest that resilience training was not upheld at 3 months post-study with others revealing no impact, particularly those held between three to four sessions (Wild et al., 2020).

As a third limitation, co-variates were not taken into account, such as extreme stressful events during the resiliency training period. These factors might have impacted the outcomes. In future studies, co-variates may be identified and measured to determine their effects on outcomes.

A fourth limitation was that the project had a small sample size and it is suggested that the study be conducted with a larger sample of firefighters. A fifth limitation is that participants served as their own control as is the case with pre-post testing. In the future, it would be recommended to have an independent control group. Lastly, the sample was predominantly male. The small number of female participants has been noted as the findings may not be representative of their experience.

XI. Implications for Practice

The current study furthers inquiry into how resilience training, which incorporates concepts of positive psychology and science, may be adopted to enhance the resilience of
firefighters and those in emergency services. In disseminating the results of this project, the DNP Candidate will inform top level management in Fire Departments of the need for resilience training for personnel and the effectiveness of such training in increasing the psychological well-being and resiliency. A subsequent study may offer multiple resilience strategies to a larger sample of firefighters from various geographical locations and may compare career and volunteer firefighters.

Future studies may explore additional factors or personality traits that promote resilience. Beyond individual firefighters, further studies should be conducted to promote a culture that results in resilient fire departments in terms of values, leadership, policies, and practices. It is also crucial that prospective studies examine measures that foster realistic optimistic reasoning, robust social backing, coping self-efficacy, and related critical concepts in populations beyond Fire Departments. For instance, research on resilience training in high-demanding professions like athletics posits a conceivable source of critical inquiry that could apply to all emergency first responders. Resilience training is important as a pro-active approach to protecting the psychological well-being of firefighters and all first responders who experience a high level of stress in protecting the lives of others.

XII. Conclusion

During emergencies, firefighters are first responders, responding to human needs during multiple crisis events, including fires. It is the expectation that firefighters are strong, physically and emotionally. While these responders must fulfill their duty, they are exposed to various traumas and distressing incidents, which is psychologically taxing and may lead to mental illness. To cope with high degrees of stress, firefighters may turn to substance abuse, and suffer from depression and/or anxiety that may lead to suicide. Addressing the resilience of firefighters will challenge the fire service culture to prioritize behavioral health and
psychological well-being, with equal importance as physical well-being. Ensuring the resiliency of firefighters by instituting training programs is consistent with the best practices of the service to care for their own. Resiliency training focuses on averting PTSD and related psychological disorders and developing a reduced susceptibility to daily stressors.

XIII. Dissemination Plan

Introduction

Dissemination aims to inform, engage and establish cognizance of the topic, and share information regarding the project, its goals, results, limitations and suggestions for future research and clinical practice. Through dissemination of results, stakeholders may continue to be engaged in building on the intervention tested in the project and having it become a component of the wellness program of firefighters. Through presentations and publications, the study results will inform other important initiatives to improve the well-being of firefighters, locally, regionally, and nationally (Vujanovic et al., 2022).

Dissemination by Presentation

An abstract regarding the project will be submitted to the EMS World Conference. The expo denotes a top learning experience for crisis healthcare experts (EMS World, 2022). The conference is characterized by a convergence of leading global medical experts providing emergency medical services. The conference functions as a community where experiences are shared and lifelong connections forged.

Dissemination by Publication

A key goal is to publish the DNP project results. A manuscript will be written and submitted to the Journal of Collegiate Emergency Medical Services (JCEMS). This peer-reviewed journal has distinct author guidelines for submission. Manuscripts are accepted on a rolling basis hence no deadline.
XIV. References

https://doi.org/10.1177/2165079919873934


Bademli, K., & Duman, Z. C. (2017). Conceptual framework for nurses in the use of the Neuman systems model on caregivers of people suffering by schizophrenia. *International Archives of Nursing and Health Care, 3*(3), 1-5. DOI: 10.23937/2469-5823/1510079

https://doi.org/10.1371/journal.pone.0199668


Carpenter, G. S. J., Carpenter, T. P., Kimbrel, N. A., Flynn, E. J., Pennington, M. L.,


Deppa, K. F., & Saltzberg, J. (2016). *Resilience training for firefighters: An approach to prevent behavioral health problems*. Springer. [https://doi.org/10.1007/978-3-319-38779-6](https://doi.org/10.1007/978-3-319-38779-6)


https://doi.org/10.3389/fpsyg.2018.02744


https://www.ncbi.nlm.nih.gov/books/NBK560658/


https://doi.org/10.1177%2F1078390319871997


Murphy, J.K. (2020, October 1). *Resiliency in the fire service*. FireEngineering.  
https://www.fireengineering.com/commentary/resiliency-in-the-fire-service/#gref

https://doi.org/10.1080/20008198.2022.2065430


https://doi.org/10.7861/futurehosp.3-3-199


Rover (2022). *Building mental health initiatives into your fire station wellness program*.  
https://roveralert.com/building-mental-health-initiatives-into-your-fire-station-wellness-program/


https://doi.org/10.1016/j.conctc.2022.100905

XV. Appendices

Appendix A
IRB Approval Letter

MEMORANDUM

To: Dr. Deborah Sherman
CC: Elio Perez
From: Maria Melendez-Vargas, MIBA, IRB Coordinator

Date: September 8, 2022
Protocol Title: "The Effect of a Resiliency Program on Coping and Psychological Well-being of Miami-Dade Firefighters: A Quality Improvement Project."

The Social and Behavioral Institutional Review Board of Florida International University has approved your study for the use of human subjects via the Expedited Review process. Your study was found to be in compliance with this institution’s Federal Wide Assurance (00000060).

IRB Protocol Approval #: IRB-22-0414 IRB Approval Date: 09/05/22
TOPAZ Reference #: 112096 IRB Expiration Date: 09/05/25

As a requirement of IRB Approval you are required to:

1) Submit an IRB Amendment Form for all proposed additions or changes in the procedures involving human subjects. All additions and changes must be reviewed and approved by the IRB prior to implementation.
2) Promptly submit an IRB Event Report Form for every serious or unusual or unanticipated adverse event, problems with the rights or welfare of the human subjects, and/or deviations from the approved protocol.
3) Utilize copies of the date stamped consent document(s) for obtaining consent from subjects (unless waived by the IRB). Signed consent documents must be retained for at least three years after the completion of the study.
4) Receive annual review and re-approval of your study prior to your IRB expiration date. Submit the IRB Renewal Form at least 30 days in advance of the study’s expiration date.
5) Submit an IRB Project Completion Report Form when the study is finished or discontinued.

HIPAA Privacy Rule: N/A

Special Conditions: N/A

For further information, you may visit the IRB website at http://research.fiu.edu/irb.

MMV/cm
Appendix B
Letter of Approval from Facility

June 21, 2022

Florida International University
Nicole Wertheim College of Nursing & Health Sciences
11200 SW 8th St, Miami, FL 33199

Dear Members of the DNP Research Committee of Florida International University,

We welcome Firefighter Ello Perez, as a DNP Student to conduct his study at Miami-Dade Fire Rescue Health and Safety Division. We are aware of his research plan and grant him permission to conduct his study at our facility.

If you have any questions regarding site permission, please do not hesitate to contact me at 786-236-5018.

Sincerely,

Willie L. Williams, Division Chief
Health and Safety Division
SUMMARY INFORMATION

The purpose of this DNP Project is to examine the effectiveness of a resiliency program centered around mindfulness training, improving psychological well-being and resiliency for firefighters/paramedics in the Miami Dade County. The Resiliency Program will consist of four Educational Seminars, to be conducted individually via Zoom. Each Educational Seminar will consist of a PowerPoint Presentation, group discussion, as well as videos on the topic and an experiential exercise.

Things you should know about this study:

- **Purpose**: The purpose of the study is to examine the effectiveness of a resiliency program on improving psychological well-being and resiliency, as compared to pre-intervention, in a period of 30 days.

- **Procedures**: An online pre and post test design will be used to evaluate each individual’s outcomes. Following the receipt of the signed online informed consent, an email will be sent to each participant containing instructions and the Qualtrics links to the Confidential Demographic and Professional Form, Brief Resilience Scale (BRS) and the Positive and Negative Affect Schedule (PANAS) Survey. All three links must be completed before the start of the first Educational Seminar. An online pre-test and post-test survey using the Brief Resilience Scale (BRS) and the Positive and Negative Affect Schedule (PANAS) will assess their level of resiliency and psychological well-being. The intervention includes four 30-minute Zoom Resiliency Educational Seminars with a group discussion. Following the completion of the three Qualtrics links, an email will be sent to each participant containing the four Zoom links for the Educational Seminars. It will include the passcodes, the dates and times of each meeting, instructions on how to access the Zoom meeting, disable their cameras, and list a fictitious name should they choose to. In the email, participants will be reminded that they can remain anonymous during the Zoom meeting and that sensitive topics may be discussed. Participants will be reminded in the email, and at the beginning of each Educational Seminar, that there are no negative consequences for not participating. The Educational Seminars will each contain a short PowerPoint Presentation followed by a group discussion and a video on the module topic. At the end of each Educational Seminar, there will be time allotted for any questions or clarifications regarding the material. Discussions during the Educational Seminars can have the sharing of ideas, thoughts on resiliency, and associated positive and negative feelings. Participants will be reminded at the beginning of the group discussion that they
will have the choice whether to participate during this time. At the end of the fourth and final Educational Seminar, the participants will be sent an email containing instructions and the Quotient links to the Brief Resilience Scale (BRS) and the Positive and Negative Affect Schedule (PANAS) Survey for post intervention completion. Below are the Educational Seminar dates and times. If a participant is unable to attend the initial weekly seminar, a make-up seminar will be available the next day.

Dates for Educational Seminars:

- Tuesday, September 20th at 1:00 pm EST (make-up seminar is Wednesday, September 21st at 1:00 pm EST)
- Tuesday, September 27th at 1:00 pm EST (make-up seminar is Wednesday, September 28th at 1:00 pm EST)
- Tuesday, October 4th at 1:00 pm EST (make-up seminar is Wednesday, October 5th at 1:00 pm EST)
- Tuesday, October 11th at 1:00 pm EST (make-up seminar is Wednesday, October 12th at 1:00 pm EST)

- **Duration:** Total time of project participation is approximately 2.5 hours over a one-month period.

- **Risks:** With the exception of the minimal risk of stress related to incorporating the project time requirements into their workday, there are no anticipated physical, social, legal or economic risks, harms or discomforts. In the email containing the Zoom Educational Seminar information, and prior to the start of each meeting, participants will be reminded that they can remain anonymous and that sensitive topics may be discussed. During the Educational Seminar, participants can disable their cameras and list a fictitious name should they choose to. Participants will be reminded in email, and prior to the start of each meeting, that there are no negative consequences for not participating. The educational seminars will have the sharing of ideas, thoughts on resiliency, and associated positive and negative feelings to whatever level they choose. Discussion of such feelings may give a sense of camaraderie. Upon signing the consent, the participant will be aware and agree to participating in the educational intervention. Should the participant experience any psychological stress during the educational seminars they will be directed to Miami Dade Fire Rescue’s Employee Assistance Program (EAP). The participant will be further evaluated by the EAP and if needed, referred to a mental health specialist.

- **Benefits:** Potential benefits include: Having a certified APRN administer the educational seminars, and participating in learning strategies to improve coping skills/mechanisms and resiliency which will potentially improve your psychological well-being. Participants will gain knowledge of a mindfulness approach to resiliency and how to incorporate resiliency skills in their professional and personal lives. Resiliency can help an individual cope with various mental health conditions and help offset factors that can increase the risk of these conditions. By an individual building their resilience to stressful factors, it is expected that they may experience more positive emotions which may positively affect their relationships both personally and professionally.

- **Alternatives:** There are no known alternatives available to you other than not taking part
in this study.

- Participation: Taking part in this research project is completely voluntary. Participants will be encouraged to interact during group discussions however, it will be at their discretion and comfort level, whether they choose to do so.

Please carefully read the entire document before agreeing to participate.

PURPOSE OF THE STUDY

The purpose of this DNP Project is to examine the effectiveness of a resiliency program centered around mindfulness training, improving psychological well-being and resiliency for firefighters/paramedics in the Miami Dade County.

NUMBER OF STUDY PARTICIPANTS

If you decide to be in this study, you will be one of 10-12 participants in this research study.

DURATION OF THE STUDY

Your participation will involve 30 minutes to complete the Confidential Demographic and Professional Form and the, as well as the Brief Resilience Scale (BRS) and Positive and Negative Affect Scale (PANAS). In addition, there will be four Educational Seminars over four weeks, which are 30 minutes each, for a total of 120 minutes or two hours. In total, study participation is expected to take 2.5 hours over a one-month period.

PROCEDURES

If you agree to be in the study, we will ask you to do the following things:

- Sign the online informed consent followed by completion of an online Confidential Demographic and Professional Form.
- Take an online pre-test Brief Resilience Scale (BRS) and the Positive or Negative Affect Scale (PANAS) to assess resiliency and psychological well-being before attending the Resiliency Program.
- Participate in the 30-minute Resiliency Educational Seminar each week for 4 weeks through Zoom.
- Understand that the sessions are not recorded.
- Understand you have the option to remain anonymous during the Zoom meetings. During the Educational Seminar, participants can disable their cameras and list a fictitious name should they choose to. It is at the discretion and comfort level of the participant on the level they choose to interact in.
- Group discussions during the educational seminars can have the sharing of ideas, thoughts on resiliency, sensitive topics, and associated positive and negative feelings.
Understand you have the choice whether to actively participate during the discussions or remain silent. There are no negative consequences for not participating.

- After attending all Educational Seminars, participants will complete the post-intervention Brief Resiliency Scale (BRS) and the Positive and Negative Affect Scale (PANAS) survey.

RISKS AND/OR DISCOMFORTS

With the exception of minimal risk of stress related to incorporating the project time requirements into their workday, there are no anticipated physical, social, legal or economic risks, harms or discomforts. Should the participant experience any psychological stress during the educational seminars they will be directed to Miami Dade Fire Rescue’s Employee Assistance Program (EAP). The participant will be further evaluated by the EAP and if needed, referred to a mental health specialist.

BENEFITS

The study has the following possible benefits to you: Having a certified APRN administer the educational seminars, and participating in learning strategies to improve coping skills/mechanisms and resiliency which will potentially improve your psychological well-being. Participants will gain knowledge of a mindfulness approach to resiliency and how to incorporate resiliency skills in their professional and personal lives. Resilience can help an individual cope with various mental health conditions and help offset factors that can increase the risk of these conditions. By an individual building their resilience to stressful factors, it is expected that they may experience more positive emotions which may positively affect their relationships both personally and professionally.

ALTERNATIVES

There are no known alternatives available to you other than not taking part in this study. Any significant new findings developed during the course of the research which may relate to your willingness to continue participation will be provided to you.

CONFIDENTIALITY

To ensure privacy and confidentiality, there will be no use of personal identifying information on any of the study data and a code number only will be used. Each participant will be given a code number upon enrollment of the study. The Master list of the participants and their assigned code numbers will be kept in a locked office of the DNP Candidate. No identifying information will be included in any form in the dissemination of study results. The records of this study will be kept private and will be protected to the fullest extent provided by law. In any report we might publish, we will not include any information that will make it possible to identify you. Research records will be stored securely and only the research team will have access to the records. However, your records may be inspected by authorized University or other agents who will also keep the information confidential. Instead of participant’s names, code numbers will be used on all study surveys.
USE OF YOUR INFORMATION

- Your information collected as part of the research will not be used or distributed for future research studies even if identifiers are removed.

COMPENSATION & COSTS

There are no costs to you for participating in this study.

MEDICAL TREATMENT

Routinely, FIU, its agents, or its employees do not compensate for or provide free care for human subjects in the event that any injury results from participation in a research project. If you become ill or injured as a direct result of participating in this study, contact your regular medical provider. If you have insurance, your insurance company may or may not pay for these costs. If you do not have insurance, or if your insurance company refuses to pay, you will be billed. Funds to compensate for pain, expenses, lost wages and other damages caused by injury are not routinely available.

RIGHT TO DECLINE OR WITHDRAW

Your participation in this study is voluntary. You are free to participate in the study or withdraw from the study at any time. You will not lose any benefits if you decide not to participate or if you quit the study early. The investigator reserves the right to remove you without your consent at such time that he/she feels it is in the best interest.

RESEARCHER CONTACT INFORMATION

If you have any questions about the purpose, procedures, or any other issues relating to this research study you may contact Firefighter Ello Perez at 305-762-2629 or at epere252@fiu.edu

IRB CONTACT INFORMATION

If you would like to talk with someone about your rights of being a subject in this research study or about ethical issues with this research study, you may contact the FIU Office of Research Integrity by phone at 305-348-2494 or by email at ori@fiu.edu.

PARTICIPANT AGREEMENT

I have read the information in this consent form and agree to participate in this study. I have had a chance to ask any questions I have about this study, and they have been answered for me. By clicking on the “consent to participate” button below I am providing my informed consent.
Appendix D
Recruitment Flyer

RESILIENCY TRAINING

This Resiliency Training consists of four 30-minute Mindfulness sessions held weekly, over a one-month period. The educational intervention will be via zoom and focus on building individual and organizational resilience in the fire service. The voluntary class is designed for 10-12 participants and anyone can withdraw from the project at any time without negative consequences. Through a combination of self-assessment, video and group discussion, participants will gain a vital foundation for individual resiliency to use on and off the job.

A pre-test and post-test online survey will be completed to assess the participant’s individual resiliency as well as a brief demographic survey. All information is completely confidential.

Educational Content includes how to:
- Assess your current level of individual resiliency
- Manage stress through mindfulness of the breath, mindfulness of current emotions, mindfulness of the mind, and mindfulness communication
- Respond to stress with optimistic, flexible thinking
- Increase positive social interactions
- Experience more positive emotions on and off shift

Who can participate in the Resiliency Training?
Sworn firefighters/paramedics between the ages of 22 – 55 years old. Must speak English and have access to a smartphone or computer.

Who teaches the training?
The course will be taught by Firefighter Elio Perez, MSN, PMHNP-BC, APRN. For questions, please email epere252@flu.edu
Confidential Demographics and Professional Form

Fill in the following information. Your answers to the following questions will be used for research purposes only and kept strictly confidential.

1. What is your age?
   - 18-24
   - 25-34
   - 45-54
   - 55-64

2. What is your gender?
   - Male
   - Female
   - Prefer not to answer

3. What is your nationality?
   - White or Caucasian
   - Black or African American
   - Hispanic or Latino
   - Asian or Asian American
   - American Indian or Alaska Native
   - Native Hawaiian or other Pacific Islander
   - Another race

4. What is your Education level?
   - High School Graduate
   - Some College
   - College Graduate
   - Doctoral Degree
   - Other

5. What is your current rank in MDFR?
   - Firefighter
   - Paramedic
   - Lieutenant
   - Captain
   - Division Chief

6. How long have you been at MDFR?
   - Less than a year
   - 1-5 years
   - 5-10 years
   - 10-20 years
   - 20-30 years
   - 30+ years

7. How would rate your physical health?
   - Excellent
   - Very Good
   - Good
   - Fair
   - Poor

8. How would you rate your emotional health?
   - Excellent
   - Very Good
   - Good
   - Fair
   - Poor
Appendix F
Study Instrument

Brief Resilience Scale (BRS)

Choose your best response to each question.

I tend to bounce back quickly after hard times.
- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

I usually come through difficult times with little trouble.
- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

I have a hard time making it through stressful events.
- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

I tend to take a long time to get over set-backs in my life.
- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

It does not take me long to recover from a stressful event.
- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

It is hard for me to snap back when something bad happens.
- Strongly disagree
- Disagree
- Neutral
- Agree
Appendix G
Study Instrument

Positive and Negative Affect Schedule (PANAS-SF)

Indicate the extent you have felt this way over the past week.

**Interested**
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

**Strong**
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

**Distressed**
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

**Guilty**
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

**Excited**
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

**Scared**
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

**Upset**
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

**Hostile**
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely
Enthusiastic
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

Proud
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

Irritable
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

Alert
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

Ashamed
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

Inspired
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

Nervous
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

Determined
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

Attentive
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
Jittery
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

Active
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely

Afraid
- Very slightly or not at all
- A little
- Moderately
- Quite a bit
- Extremely
Appendix H
DNP Project PowerPoints

Mindfulness of Breath

What is Mindfulness of Breath?

Mindfulness of breath is a tool used to calm a person in intense situations by bringing them back to the moment.

The concept involves paced breathing delineated as deep diaphragmatic inhalation with characteristic rates equivalent to or less than 5-7 breaths per minute (Brenner et al., 2020).

The conception requires people to visit a quiet place to establish mindfulness ‘in front’ (Goldstein, 2013).

When properly learned and practices, it has benefits including reduced stress, improved calmness and clarity.
**Mindfulness of Breath**

*How is it helpful to you?*

- Involves highlighting the focus on breathing, the prevailing moment, and thoughts (Zeidan, 2010; Anālayo, 2021).

- Involve creating a distinct emphasis on sensations caused by the breath (Anālayo, 2019).

- Necessitates key exercises like enabling energy flow by extending feet to the ground and shifting focus to internal rhythm (Harvard T.H. Chan School of Public Health, 2013).

---

**How is it done?**

**Where to Practice**

- Find a convenient time for meditation in a quiet place, alone, and undisturbed (Talekar & Kolarkar, 2018; Gunaratana, 2012; Goldstein, 2013; Zeidan, 2010).

**How to Sit**

- Sit in a comfortable posture that allows full body relaxation.
- Sit with legs folded crosswise and body erect (Anālayo, 2019).
- Place hands on arms while focusing on breathing discerning short and long breaths (Sutta, 2012; Sivaramappa et al., 2018).
Focusing Attention

- The meditators become more conscious of their environments and emotions and are liberated (Ditrich, 2018).

Establishing Presence of Mind

- Create a meditative composure and attentiveness with diligent effort (Análayo, 2019; Sutta, 2012; Talekar & Kolarkar, 2018; Zeitän, 2010).

Mindfulness of Breath

Discussion Questions:

- **How can breathing aid in calming a person?**
  - It brings an individual to the current moment by focusing on the specific issue and not having external thoughts that may escalate it (Análayo, 2019). In firefighters, paced breathing aids in managing current emotions and regulating stress while increasing energy and maintaining optimal arousal requisite for augmented focus and performance.

- **What techniques can be used to help in mindful breathing?**
  - Taking an initial deep breath and then focusing on every other breath (Nanamoli, 2010). The approach is realized through meditation of the body, sensation, cognizance, and psychological objects.
Helpful Videos

THANK YOU
Mindfulness of the Mind

What is Mindfulness of the Mind?

Involves:
- Cleansing the mind so that harmful tendencies do not manifest as actions (Gunaratana, 2012).
- A state and not a trait of developed attention (Chandwani et al., 2016; Yates et al., 2017).
- Understanding the nature of the mind, what is happening, and creating knowledge of the environment (Doug’s Dharma, 2018; Goldstein, 2013).
- Workouts: body, mind, and sensation contemplation for an embodied mind and increased empathy (Hanh, 2013; Kjønstad, 2020).
Mindfulness of the Mind

Key Lessons

- The concept is realized through practice and unbiasedness of what is acquired through insight and concentration (Tang et al., 2015; Gunaratana, 2012).
- The construct may be attained through continuous practice in understanding one's moods and emotions (Schooler et al., 2014; Goldstein, 2013).
- The mindfulness of the mind can be improved through recording observations, distinguishing patterns, and mindful breathing (Eberth & Sedlmeier, 2012; Hanh, 2013).
- The concept also requires awareness of potential distractions (Yates et al., 2017).

Firefighters: Achieving Mindfulness of Current Emotion

- Beginning each day with meditation employing the breath as the central focus (Gunaratana, 2012).
- Practicing awareness of mental states and recognizing the self as the object of attention (Hanh, 2013; Stewart, 2019; Tang et al., 2015).
- Knowing when unwholesome mind states are absent and using heart practices and open-monitoring meditation to experience (Goldstein, 2013; Vorhaoghan, 2017).
- Applying mindfulness and focus without concepts as they act as impediments (Yates et al., 2017).
Mindfulness of the Mind

The concept involves contemplating feelings, senses, and emotions internally and externally (Goldstein, 2013; Alidina, 2020).

The mind and body are one with a mindful mind associated with happiness and emotions regulation (Hanh, 2013; Verhaeghen, 2017; Tang et al., 2015).

The concept brings objectivity, clear-headedness, and developed awareness (Yates et al., 2017).

The mindfulness aids improve memory and resilience (Stewart, 2019).

Mindfulness of the Mind

Discussion Questions:

• **How can mindfulness of the mind be achieved?**
  • Practicing often (Schooler et al., 2014). The move helps manage mind-wandering that makes people perpetually decoupled (Schooler et al., 2014). Continuous practice acts as an antidote to mind-wandering among firefighters.

• **What are the techniques used to improve mindfulness of the mind?**
  • Recording all observations and identifying patterns (Eberth & Sedimeier, 2012). The two approaches aids in attending to internal and external experiences of firefighters.
Mindfulness of Communication

What is Mindfulness of Communication?

- The technique encourages individuals to adopt a conscious way of communicating and employing mindfulness principles (Brown, 2019; SIGMA, n.d.).

- The theory involves practices like remaining nonjudgmental to people's responses which helps deepen the connection at the moment and listening to oneself (Sanvello, 2021; Kane, 2014).

- The foundation is to listen mindfully and observe and not evaluate (Sofer, 2018; Kane, 2015).

- The concept is contingent on the fact that people convey their actual feelings based on existing relationships (Jones & Hansen, 2015).
Mindfulness of Communication

- Individuals spend their lives communicating and sometimes wield an autopilot in their communication (Sofer, 2018; Kane, 2014).
- Individuals keen on communicating mindfully necessitate a degree of self-awareness, setting an intention, being fully present, bringing attention to words, and openness (SIGMA, n.d.; Kane, 2015; Chapman, 2012).
- Individuals may not clearly articulate what they mean when speaking (Sanvello, 2021).
- People practicing mindful communication listen with care while regulating their emotions (Brown, 2019).

Mindfulness of Communication – what can you do?

- Partaking in two-way communication and feedback serves to improve the concepts of interaction and empathy (Huston et al., 2011; Brown, 2019).
- Miscommunication owing to mind reading, rehearsing, and judging can lead to dysfunctional relationships and affect outcomes (SIGMA, n.d.; Nishishiba, 2017).
- Interaction forms the bedrock of all social relationships and the quality of their lives (Sofer, 2018).
- Mindful communication also encompasses focused listening without distraction with moment-to-moment awareness (Sanvello, 2021; Kane, 2015).
Mindfulness of Communication

Discussion Questions:

• How can one improve mindfulness communication?
  • Engaging in two-way communication and feedback (Huston et al., 2011). The former enables negotiated communication while feedback guarantees adaptive communication tailored for positive outcomes.

• How do relationships affect communication?
  • People communicate their true feelings contingent on the relationship they have with a person (Jones & Hansen, 2015). Supportive relationships reinforce desired communication which conveys encouragement, empathy, and care. The approach determines how firefighters can cope with difficult emotions and aversive instances.
Helpful Video

Is it timely? Beneficial?

Thank you
Mindfulness of Current Emotions

What is Mindfulness of Current Emotions?

Mindfulness of current emotions reduces emotional suffering through practicing loving one's emotions, rumination, and reflection.

The concept is based on the observation that various signals like loud speech and body language signify emotions (Lindsay & Creswell, 2019).

The observers' reactions are contingent on whole body expressions and outside social environment (Kret et al., 2013).

The emotions are varied across various contexts and individuals (Hoge et al., 2019).
Mindfulness of Current Emotions

How is it helpful to you?

- Individuals encounter a range of emotional challenges daily requiring adaptive choice as a means of regulation (Alkoby et al., 2019).
- Firefighters can learn to use life’s inevitable pains as objects of meditation by experiencing emotions in the present moment and reducing negative responses (Gunaratana, 2012; DBT-RU, 2020; Blanke et al., 2020; Roemer et al., 2015).
- Firefighters understand how to enhance emotion regulation by reducing reactivity (Hill & Updegraff, 2012).
- Individuals can increase executive control, cognitive flexibility, and emotional well-being (Nyklíček, 2011).

Mindfulness of Current Emotions: Steps

- Start by noticing and observing one’s emotions (DBT-RU, 2020).
- Re-appraise the emotions distinguishing among the pleasant, unpleasant, and neutral feelings to deal with them mindfully in an adaptive manner (Leahy et al., 2011; Gunaratana, 2012; Alkoby et al., 2019).
- Distinguish the nature of sensations, whether from contact externally or internally to evoke awakening (Goldstein, 2013).
- Notice emotions without value judgment and respect them (Linehan, 2015; Blanke et al., 2020).
What can you do?

Firefighters: Attaining Emotion Regulation

- Attaining equanimity frees people from the ups and downs of pleasure and pain (Gunarathena, 2012).
- Practicing body sensations requires one to experience them fully and enables emotional recovery (Linehan, 2015; Roemer et al., 2015).
- Focusing attention on emotions works as an adaptive management approach and also deals with trait rumination with thoughts that cause depression (Alkoby et al., 2019; Blanke et al., 2020).

Mindfulness of Current Emotions

Discussion Questions:

- **What signals indicate emotions?**
  - Wide open eyes, loud speech, facial expressions, body language (Lindsay & Creswell, 2019). According to Kret et al. (2013), observers’ reactions to the body and facial expressions are influenced by whole-body expressions and the surrounding social scene. In addition, individuals incline to respond with corresponding facial muscle movement.

- **Are the signals of emotions similar to all individuals?**
  - No. Individuals have different signals for different emotions (Hoge et al., 2019). Firefighters receive emotional indications from varied sources, including the body, face, and the natural scene that establishes the difference.
Helpful Video

THANK YOU