Development of a Health and Wellness Assessment for KYTC Personnel

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Kentucky Transportation Center
College of Engineering, University of Kentucky, Lexington, Kentucky

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Kentucky Transportation Cabinet
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Research Report
KTC-25-21

Development of a Health and Wellness Assessment for KYTC Personnel

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16. Abstract

Highway construction workers operate in high-stress, hazardous settings where they have to perform physically taxing labor in environments where exposure to variable weather conditions, heavy equipment, high volumes of vehicle traffic, and other conditions that induce stress and anxiety are the norm. Up to 70% of workers in this industry have reported experiencing mental health issues, including secondary traumatic stress, post-traumatic stress disorder, depression, anxiety, and substance abuse disorders. Few state departments of transportation, however, offer adequate resources staff can draw on to effectively manage their psychological well-being. To help Kentucky Transportation Cabinet (KYTC) roadway maintenance and construction workers develop the requisite skills to manage their mental health and handle high-stress situations, the Kentucky Transportation Center (KTC) developed and delivered a mental wellness training for KYTC staff focused on stress management techniques, healthy habits (including nutrition), and coping mechanisms. Post-training surveys found the training improved awareness of stressful and traumatic workplace experiences and helped participants feel more confident in their abilities to negotiate challenges and implement stress management techniques. Following training, participants also expressed a greater willingness to follow wellness and safety protocols in stressful situations. The Cabinet should continue to offer the training, but it needs to be customized to address the unique environments and occupational roles occupied by staff. KYTC will also benefit from holding short refresher trainings, more fully integrating considerations about mental health into policy and planning, and appointing peer advocates to demonstrate and promote habits that foster psychological wellness.

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Workplace stress, Mental health, Employee wellness, Pre-incident training, Transportation workforce	Unlimited with approval of the Kentucky Transportation Cabinet

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Executive Summary

Worldwide, the highway construction and maintenance industry is one of the most hazardous industries, with high rates of fatal and nonfatal workplace accidents. Between 2003 and 2015, 1,571 US roadways construction and maintenance workers died as the result of injuries suffered in workplace accidents. Nearly 45% of fatalities between 2011 and 2015 stemmed from vehicles colliding with laborers inside construction work zones. And in 2019, the US recorded 1,066 incidents in roadway work zones — the highest number since 2007.

Highway construction and maintenance workers operate in high-stress, hazardous environments doing physically taxing labor. They can work at high elevations and on unstable ground, negotiate adverse weather conditions, and are routinely near heavy equipment, traffic, and electricity sources. This work is also highly seasonal, which contributes to unstable employment. These stressors can lead to significant mental health issues, including secondary traumatic stress (STS) and post-traumatic stress disorder (PTSD). As many as 70% of workers have reported experiencing mental health issues, including severe stress, anxiety, depression, and substance abuse disorders.

Many workers lack the training, resources, or support systems necessary to manage stressors effectively, making it difficult for them to maintain their psychological well-being and perform safely on the job. To help Kentucky Transportation Cabinet (KYTC) roadway maintenance and construction workers develop skills to manage their mental health and handle high-stress situations, the Kentucky Transportation Center (KTC) developed and delivered a mental wellness training for KYTC staff focused on stress management techniques, healthy habits (including nutrition), and coping mechanisms. Content for the training — including presentations and handouts — drew from workplace mental health and wellness program best practices. Researchers conducted a pilot training and measured its effectiveness by surveying participants prior to and just after the training was held.

Post-training surveys found the training improved awareness of stressful and traumatic workplace experiences and helped participants feel more confident in their abilities to negotiate these challenges and implement stress management techniques. Following training, participants also expressed a greater willingness to follow wellness and safety protocols in stressful situations. Nonetheless, participants perceived barriers that could prevent them from dealing effectively with stressful and traumatic events, such as time constraints and limited support for mental health at the Cabinet.

Results of the pilot training suggest that KYTC should continue to offer the training, but customize it to address unique challenges confronted by workers operating in different environments and occupational roles; hold short refresher trainings during safety briefings; increase awareness of mental health–related resources; integrate mental health considerations into policy and safety planning; and appoint trained peer advocates to promote open communication and good mental wellness habits. Future research should investigate the root causes of stress-inducing incidents and evaluate the long-term effects of wellness training on employee performance and safety.

Chapter 1 Background and Scope of Work

1.1 Introduction

Construction is one of the most hazardous industries for workers, with high rates of fatal and nonfatal workplace injuries (Namian et al. 2022). In 2019, the US recorded 1,066 incidents — its highest number since 2007 (Namian et al. 2022). Ibrahim et al. (2023) found that in 2021 and 2022, the construction industry accounted for one in five work-related fatalities in the United Kingdom. The situation is even more tragic in developing countries like Iran, where despite less than 15% of workers bring employed in the construction industry, it accounts for close to half of all occupational fatalities (Soltanzadeh et al. 2019).

Many studies have sought to identify the causes of workplace accidents. Examining relationships between fatigue, hazard recognition, and risk perception, Namian et al. (2021) documented that fatigue negatively impacts workers' safety performance and is a major cause of accidents. Taherpour et al. (2021) studied the influence of fatigue on safety attitudes, hazard recognition, and risk perception among construction workers and similarly concluded that fatigue negatively influences these vital safety attributes. Namian et al. (2018) also showed that distractions may impair workers' recognition of hazards and appraisal of related safety risks.

Roadway construction and maintenance presents risks to state department of transportation (DOT) employees. They are exposed to adverse weather conditions, can work at high elevations, and are in close proximity to heavy equipment and electricity sources (Dadi et al. 2023). The Centers for Disease Control and Prevention (CDC) found that between 2003 and 2015, 1,571 US workers involved in roadway work died due to workplace accidents. Nearly 45% of fatalities between 2011 and 2015 were caused by vehicle collisions with workers inside construction work zones (Al-Bayati et al. 2023).

Compared to other industries, construction workers are uniquely vulnerable to mental health issues due to their high-stress, hazardous work environments that frown upon displaying emotion or showing weakness (Sherratt and Turner 2018). These factors place construction workers at a higher risk for poor mental health outcomes. Mental health problems within the construction manifest in the form of heightened levels of depression, anxiety, suicidal thoughts, and completed suicides (Burki 2018; Chan et al. 2020; Kamardeen and Loosemore 2016). This widespread problem underlines a critical link between mental health and workplace safety — reducing job-related injuries and accidents goes hand in hand with improving mental health and well-being practices.

1.2 Problem Statement

Construction workers face harsh conditions on jobsites, such as temperature extremes, precipitation, and other environmental factors that influence their productivity and physical well-being (Boatman et al. 2012; Chan et al. 2020). Their jobs are often repetitive and labor-intensive, resulting in long-term fatigue, musculoskeletal disorders, and other health-related issues. Highway construction work is seasonal and requires workers to move across multiple sites. Constrained project schedules and budgets place pressure on workers to meet deadlines, which results in long hours and heavy workloads. Job demands, combined with extended working hours and unstable employment, produce a stressful work environment that negatively influences physical and mental health (Beswick et al. 2007; Chan et al. 2020; Nipa et al. 2022). Poor mental health lowers productivity and can pose serious threats to safety and performance (Nwaogu et al. 2020).

Despite recognition of mental health challenges in the construction industry, wellness trainings remain uncommon at government agencies. Employees in highway maintenance and construction, like those at the Kentucky Transportation Cabinet (KYTC), operate in stressful environments where they are exposed to traffic, hazardous conditions, and traumatic incidents. These stressors can lead to significant mental health issues, including secondary traumatic stress (STS) and post-traumatic stress disorder (PTSD). But many employees lack the training,

resources, or support systems necessary to manage stressors effectively, making it difficult for them to maintain their psychological well-being and perform safely on the job.

1.3 Objectives

While KYTC staff are knowledgeable about risks posed by workplace-induced stresses, their efforts to respond appropriately have been hindered by the limited availability of mental health services, poor clarity of wellness procedures, and time constraints. The purpose of the research described in this report was to develop and deliver a mental wellness training for Cabinet staff focused on stress management techniques, healthy habits (including nutrition), and coping mechanisms. In developing content for the training, including presentations and handouts, we drew on workplace mental health and wellness program best practices. Our team measured the pilot training's effectiveness by administering a survey before and after the training was held.

Chapter 2 Literature Review

2.1 Mental Health and Well-Being

Roughly 90% of people who die from suicide experience a mental health condition at some point in their lives, such as depression, substance abuse disorders, anxiety, or trauma (Brådvik 2018). The construction industry has faced serious challenges with respect to the mental health of workers as — among major industries — it has the second highest worker suicide rate (Peterson 2020). But often the industry does not provide adequate resources to help employees cope with mental health–related issues. A 2017 study found that 88% construction industry workers surveyed felt more support should be available for those confronting mental health issues (Alderson 2017).

Studies from around the world have highlighted the prevalence mental disorders among construction laborers, with depression rates ranging from 18% to 70% and anxiety rates from 48% to 87%. In the United Kingdom (UK), Campbell (2006) found that nearly half of construction professionals experienced anxiety, while just under 20% suffered from depression. Poor mental health among construction workers can translate into worse physical health outcomes, lower quality of life, reduced capacity to perform on the job, and suicide (Frimpong et al. 2025; Milner et al. 2017). Suicidal thoughts have been reported by between 6% and 26% of workers in the industry (Alderson 2017; Frimpong et al. 2025). The suicide rate for male construction workers is 97% higher than for males in non-construction industries (Hon et al. 2024; Maheen et al. 2020). In Australia, construction workers are six times more likely to die by suicide than in workplace accidents (Hon et al. 2024). A similar picture emerges in the UK, where suicide rates in the construction industries outpace those in other industries. Between 2001 and 2005, more male construction workers committed suicide than men in other types of employment. A study covering 2011 – 2015 found that among all major occupational groups, construction workers were at the highest risk of committing suicide (Campbell and Gunning 2020).

2.2 The Impact and Prevalence of Poor Mental Health

Mental health, as defined by the WHO (2001, p. 1), “is a state of well-being in which the individual realizes his or her abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.” The definition emphasizes how good mental health is imperative to individual well-being and effective day-to-day functioning (Chan et al. 2020; Herman and Jané-Llopis 2005). Conversely, poor mental health compromises an individual's ability to achieve their full potential, excel in their jobs, and connect meaningfully with their society (Herrman and Jané-Llopis 2012). Globally level, poor mental health among young people has increased sharply (Akseer et al. 2020), including among workers in the construction industry under the age of 35 (Frimpong et al. 2025).

Poor mental health also has broad ramifications for workplace performance and safety. Poor mental health contributes to poor job performance as psychologically distressed workers tend to find it difficult to concentrate, feel motivated, and make decisions (Pidd et al. 2017; Yuan et al. 2018). It may result in higher presenteeism, where workers report to work when ill, heightening accident risk and reducing productivity (Pidd et al. 2017), especially in physically demanding workplaces like construction sites. Mental health difficulties have been associated with higher substance and alcohol consumption among workers in the construction industry, who use them as coping mechanisms to mitigate stress and manage pain (Chapman et al. 2021; Lim et al. 2017). These behaviors, which are detrimental to worker health, can undermine jobsite safety (Flannery et al. 2021). The link between poor mental health and compromised workplace safety, as well as lower productivity, reflects its far-reaching impacts on workers and construction organizations (Abbe et al. 2011; Chen et al. 2017).

Poor mental health among construction manual and trade workers can stem from organizational, social, and personal factors. Contributing factors include poor work-life balance due to long working hours and overtime, job demands, and job insecurity, all of which exert psychological pressure. Chronic body pain due to physically

demanding work, lack of social support in temporary job settings, and feelings of injustice in the workplace, including discrimination or bullying, also impair mental health. Workplace cultural norms that promote toughness and independence often stigmatize mental illness, discouraging workers from seeking treatment. When combined, these stressors significantly raise the risk of mental health problems (Duckworth et al. 2024)

2.3 Strategies for Improving Mental Health and Reducing Workplace Stress

Clear and unambiguous communication throughout an organization at all levels plays a critical role in heightening awareness of risks related to mental health (Vecchio-Sadus 2007). Face-to-face communication — using visible and non-verbal communication — has a more lasting impact on employee behavior than digital methods like email or memos (Vecchio-Sadus 2007). The Chartered Institute of Personnel and Development (CIPD) asserts that good leadership, a supportive working environment, employee engagement, and effective people management are all fundamental building blocks of an effective health and well-being strategy. Techniques like having an open door policy foster trust, where employees feel more empowered to discuss issues and concerns with management (Campbell and Gunning 2020). Regular surveys and check-ins let employers track employees' well-being, detect possible risks, and take measures to enhance workplace satisfaction. There is evidence too that supports a strong link between workplace happiness and overall life satisfaction (Clark et al. 2019). Notably, job satisfaction depends on more than wages — it is affected by autonomy, job security, social support, and maintaining a balance between work and personal life (Clark et al. 2019).

Promoting healthy behaviors in the workplace empowers employees to take greater responsibility for their physical and mental well-being. Employee assistance programs (EAPs) can deliver professional guidance and counseling to assist with personal as well as workplace issues (Joseph et al. 2018). Informing staff about health issues through posters, leaflets, email, and other communication aids acts as a reminder to adopt more health-conscious lifestyles (Campbell and Gunning 2020). Regular workshops and presentations can also teach staff about healthy lifestyles with the aid of compelling illustrations, discussions, and narratives. Mindfulness training, involving breathing exercises and guided imagery, can improve relaxation, decrease stress, and enhance overall well-being (Glomb et al. 2011; Hoge et al. 2013).

Promoting physical activity in the workplace is also an important aspect of employee well-being. Activities like yoga or group fitness sessions benefit physical health, foster social interaction, and increase energy levels. Routine movement keeps cardiovascular and respiratory systems functioning properly, helps with weight management, and improves mood. Research indicates that when workplaces accommodate physical activity with proper spaces and tools, workers are more inclined to stay active, and this can result in greater job satisfaction and productivity (Silcox 2016).

Technology also plays an increasingly important role in workplace well-being. Videos are effective tools for training employees on risk prevention and safety strategies (Campbell and Gunning 2020). Digital media and mobile applications such as Headspace can help workers with stress management and mindfulness practice, leading to greater resilience and improved mental health (Campbell and Gunning 2020). Volunteering in the workplace provides social interaction as well as purpose and reduces depression, stress, and anxiety. It has also been linked to better physical health, including reduced blood pressure and increased longevity (Secker et al. 1995). Nevertheless, to prevent added stress, volunteering activities should be designed based on personal choices and properly monitored.

Conducting health checks and screening in the workplace can be useful. Checks can detect health issues early so that employees receive proper advice and assistance in a timely manner. Drug and alcohol testing on a regular or periodic basis can also act as a preventive measure, particular in risk-prone industries. For instance, a survey conducted in 2016 revealed that 35% of workers in the building industry had seen coworkers under the influence of drugs or alcohol at workplaces (Campbell and Gunning 2020). The causes of such issues may stem from or

result in workplace stress. Hence, prudent employers must adopt proactive and empathetic measures to address such risks and assist affected workers.

Chapter 3 Methodology

This chapter outlines the design, implementation, and evaluation of the KYTC mental health and stress management training. The training is rooted in behavioral science, shaped through consultation with subject-matter experts, and tailored to the needs of employees working in high-stress roles such as roadway maintenance and construction. The approach combines expert input, a structured training session, an educational handout, and pre- and post-training assessments. The goal was to create a practical, evidence-informed program that educates staff about stress and mental health and equips them with effective tools they can apply on the job.

3.1 Expert Consultation and Contextual Foundation

To develop the program, we first met with experts in occupational health and safety, psychology, and employee well-being. These meetings helped our team understand the main risks faced by KYTC employees. Specialists shared effective strategies for addressing these challenges and offered insights into mental health issues faced by public-sector workers. This was especially relevant for employees who deal with injuries, trauma, or environmental hazards.

KYTC staff, particularly those who work in the field, frequently encounter challenging circumstances or must navigate urgent and dangerous situations. Specialists note that these encounters, even if not directly experienced, contribute to stress and affect mental health. They also highlight cultural obstacles like hesitancy to seek assistance or discuss mental health issues, which can prevent employees from seeking timely support. Based on these observations, we felt the program needed to go beyond raising awareness by offering straightforward, practical self-care resources and establishing a blueprint for building a workplace that prioritizes transparency and support for mental wellness.

Initial discussions played a crucial role in determining how the training program would be organized and what it would cover, highlighting the necessity of equipping staff with practical techniques for handling stress in everyday situations. These conversations underscored the significance of offering continuing assistance once training is done, guaranteeing that the training would have a lasting impact. Furthermore, they guided development of the informational handout and shaped content of the survey so that both resources aligned with program objectives.

3.2 Questionnaire Development and Theoretical Basis

To assess the wellness program's effectiveness, we developed a detailed survey drawing on two prominent models from behavioral science: the Health Belief Model (HBM) and the Theory of Planned Behavior (TPB) (Rosenstock, 1990; Ajzen, 1991). These frameworks have been employed widely in health studies to understand, predict, and change how individuals participate in health-related actions. Their significance in the context of mental health at work stems from their ability to evaluate how individuals view risks, advantages, obstacles, and their capacity to take action.

We designed the survey to be administered before and after training so we could track changes in employee awareness, perspectives, and behavioral intentions. The survey was distributed using the Qualtrics platform and accessed via QR codes provided during the session. All responses were anonymous to ensure privacy and to encourage honest responses.

The survey measured perceived susceptibility to facing stress or trauma in the work environment, potential consequences of stress-related conditions, the utility of wellness training for coping with stressful events, barriers to implementing stress management practices, ability to apply wellness tools on the job, and behavioral intentions. Respondents could also share their thoughts on what aspects of the training they found helpful, what

obstacles they continued to encounter, and suggestions for enhancing the training program. Appendix A reproduces the pre- and post-training survey in full.

3.3 Training Intervention and Delivery

The training session was conducted in collaboration with KYTC's Employee Safety Division. All participants received a *Pre-Incident Wellness Training: Supplemental Material* handout (see Appendix B). The training highlighted three areas: recognizing stress and trauma, effective tools for managing stress, and support systems available to employees. Participants also had the opportunity to discuss issues they face in their work environments.

3.4 Role and Design of the Training Handout

Appendix B contains the *Pre-Incident Wellness Training: Supplemental Material* handout. This document reinforces main points from the training and was designed to be clear, engaging, and usable in the field, particularly for staff who might not have quick access to wellness tools or time for extended training. It addresses topics such as the symptoms of stress, common workplace stressors confronted by Cabinet staff, and practical coping techniques. The handout lists resources staff can utilize, including to the Kentucky Employee Assistance Program (KEAP), 988 Suicide and Crisis line, and mental health services accessed through the state's insurance system online.

Chapter 4 Training Outcomes and Analysis

4.1 Introduction

Twenty-one KYTC employees participated in the pilot training. As the previous chapter noted, we administered the same survey before and after training to document how it influenced attendees' perceptions, attitudes, and behavioral intentions. This chapter analyzes survey responses.

4.2 Participant Demographics

Thirteen (62%) participants were aged 35 – 54, indicating the majority had reached at least the at the midpoints of their careers (Figure 4.1). The same percentage had over 10 years of experience with KYTC, with the remaining participants having fewer. Experienced staff often endure greater occupational stress and are at greater risk of deteriorating mental and physical health, underscoring the importance of targeted wellness support. Only one participant was a woman, consistent with national trends in the transportation and construction industries, which are overwhelmingly male. Gender differences are important in stress and mental health studies, as men are generally less likely to access treatment or talk about psychological issues.

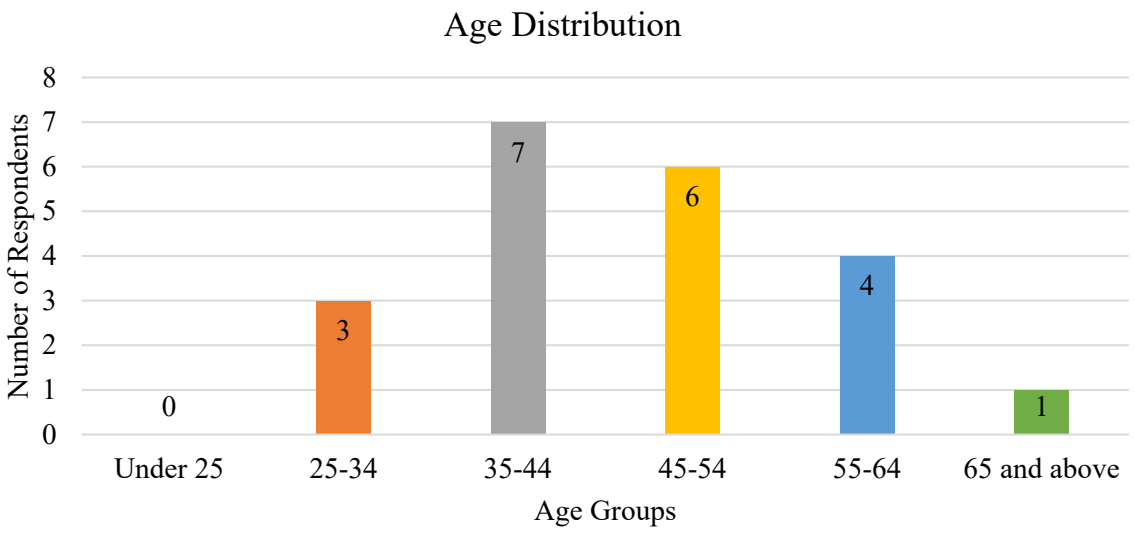

Figure 4.1 Age Distribution of Training Participants

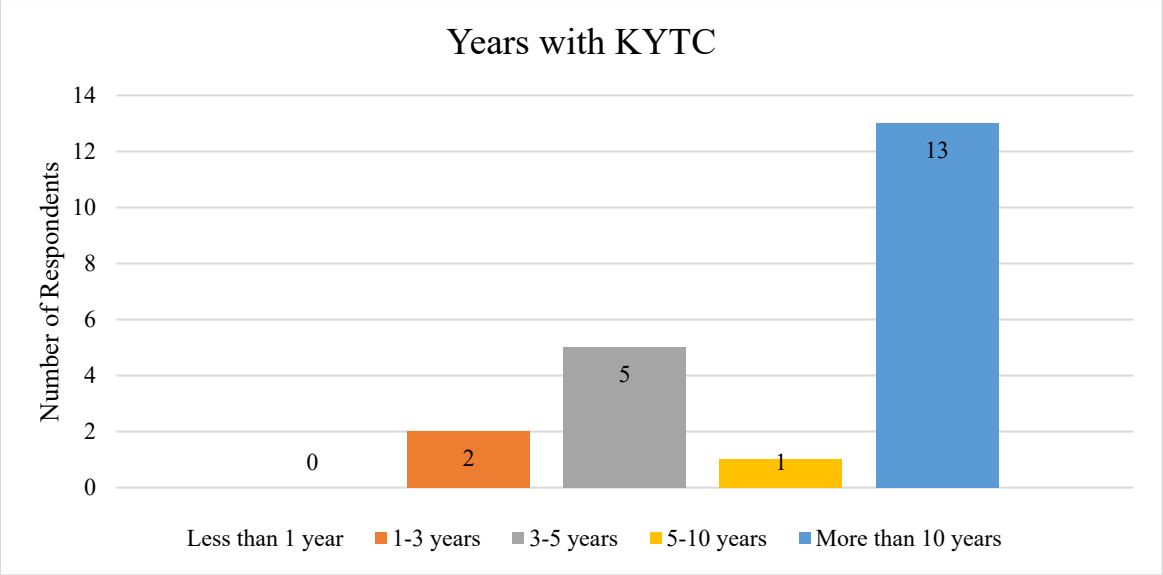

Figure 4.2 Participants' Level of Experience at KYTC

Most participants (43%) worked in the Highway or Employee Safety Divisions, while 33% called Maintenance their home. Smaller percentages came from Traffic Operations and Construction. Having participation from multiple divisions was critical for including employees with different job functions so that mental health initiatives could be tailored to job-related stressors typical of each division.

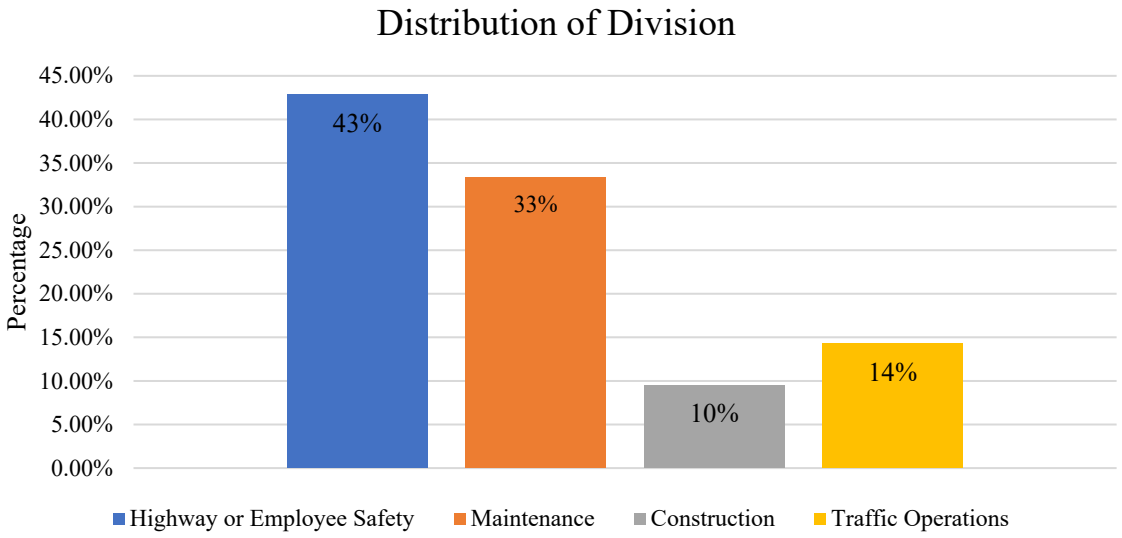

Figure 4.3 Participants' Occupational Backgrounds

Most participants (76%) reported that their work is split between office- and field-based tasks (Figure 4.4), suggesting that wellness resources need to adaptable to both environments.

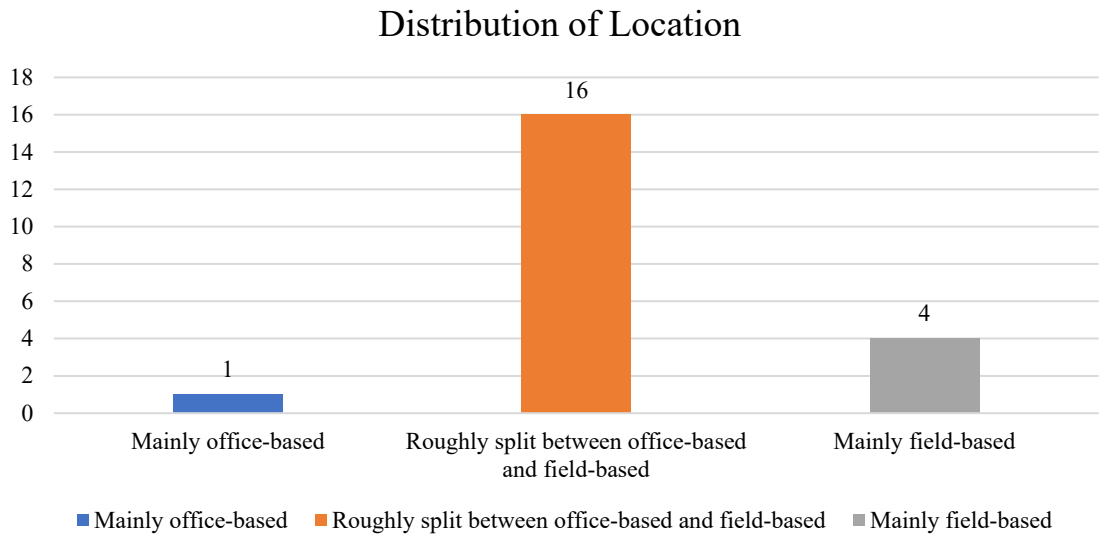

Figure 4.4 Work Environments of Training Participants

4.3 Pre-Training Survey

We administered the pre-training survey to establish baseline measures of participant attitudes and perceptions and identify areas KYTC staff might be less aware of, less confident in, or that introduce barriers to their psychological well-being. While not all participants completed both surveys, post-training data provide useful information about respondents' short-term responses to the training.

Perceived Susceptibility

While there was no definite consensus on perceived susceptibility to stressful or traumatic events at work, eight respondents (50%) saw an encounter as extremely or somewhat likely (Figure 4.5). The distribution of responses suggests that workers have awareness of their vulnerabilities but differing levels of concern. These results indicate the importance of raising awareness about indirect trauma, especially for field-related occupations, where emotional stress is unnoticed or underreported.

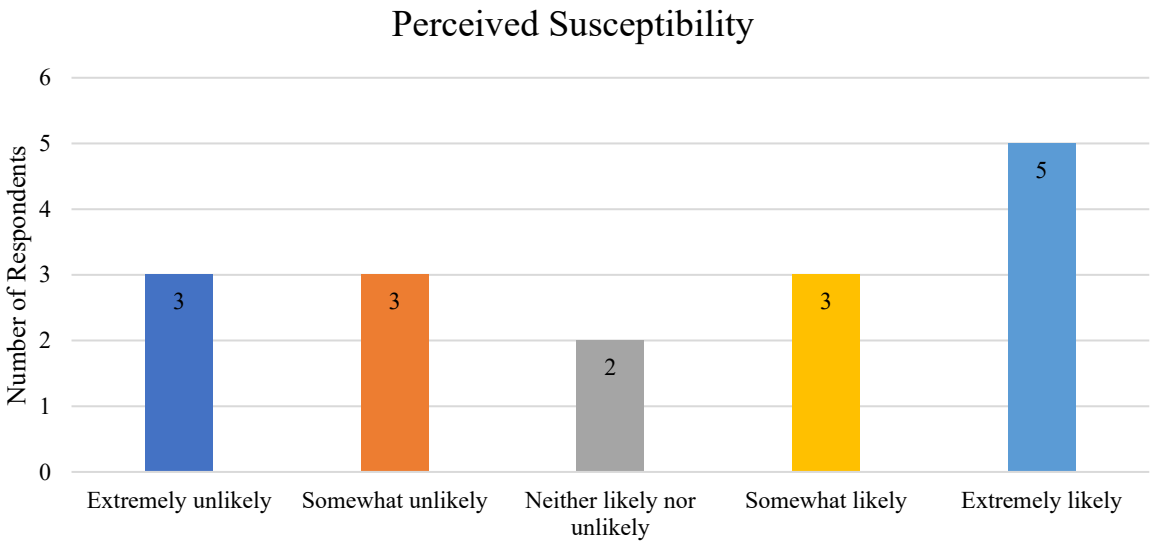

Figure 4.5 Perceived Likelihood of Experiencing a Stressful or Traumatic Event at KYTC

Perceived Severity

Eight respondents (50%) regarded the consequences of STS or PTSD for themselves or coworkers as moderately serious. Other respondents were split between viewing the consequences as not serious or slightly serious and serious or very serious.

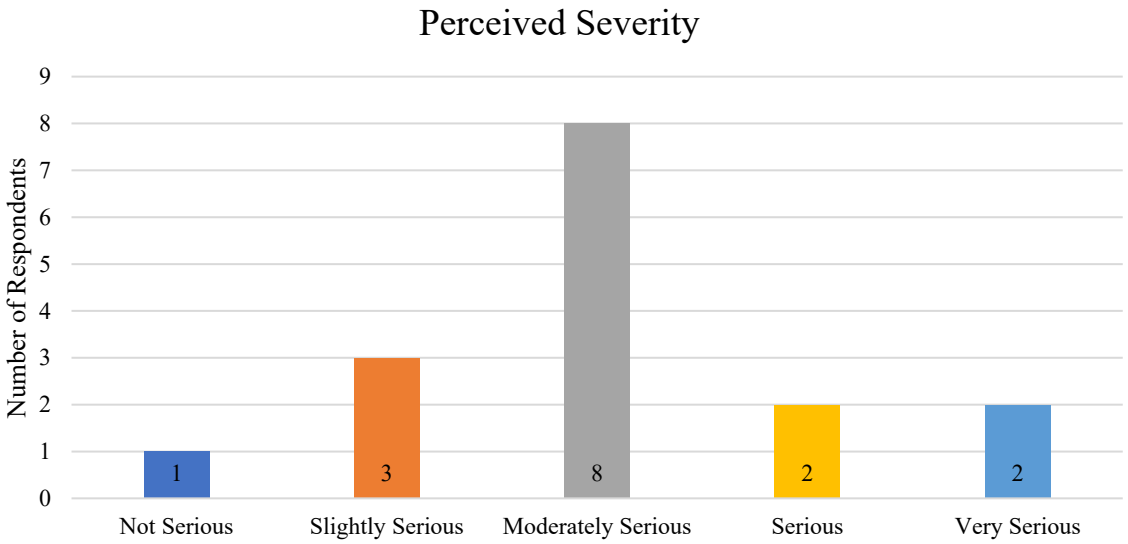

Figure 4.6 Perceived Severity of STS or PTSD Consequences

Perceived Benefits

Fourteen respondents (88%) said they felt wellness training would be moderately beneficial or beneficial in helping them deal with STS and other workplace traumas (Figure 4.7). No one indicated that they felt it would confer zero benefits. Given so many respondents did not perceive training as very beneficial, it could be an indication they were uncertain about how the program would be applied on the job or unfamiliarity with mental wellness tools.

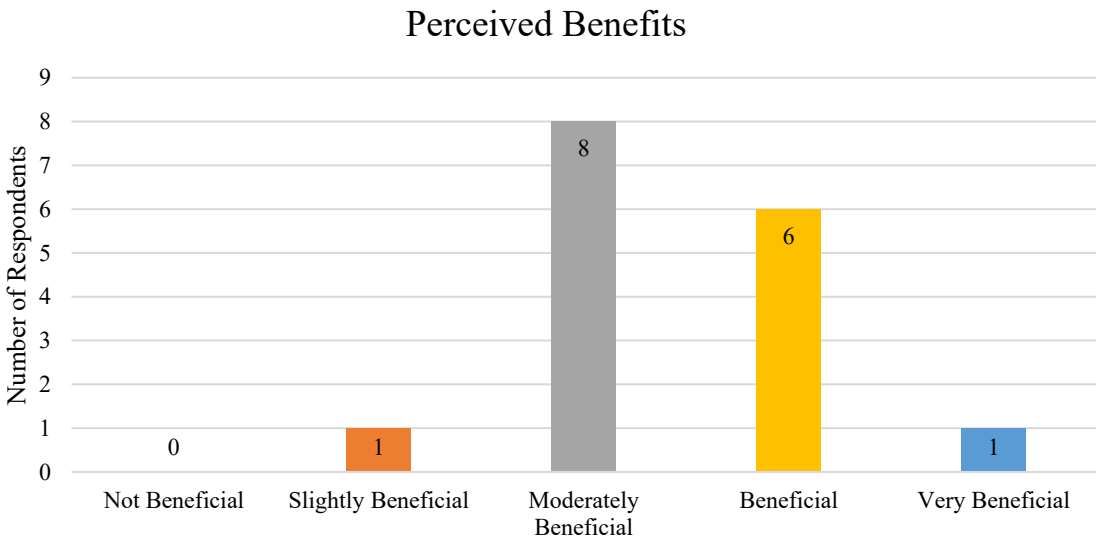

Figure 4.7 Perceived Benefits of Pre-Incident Wellness Training

Perceived Barriers

The most-cited barrier to coping with stress and traumatic events in the workplace was time constraints (34%), followed by lack of training (28%) (Figure 4.8). The latter indicates employees feel that formal training has not been available or that existing resources to help staff deal with stress proactively are insufficient. Lack of equipment, unclear safety procedures, and inadequate of mental health support garnered fewer responses.

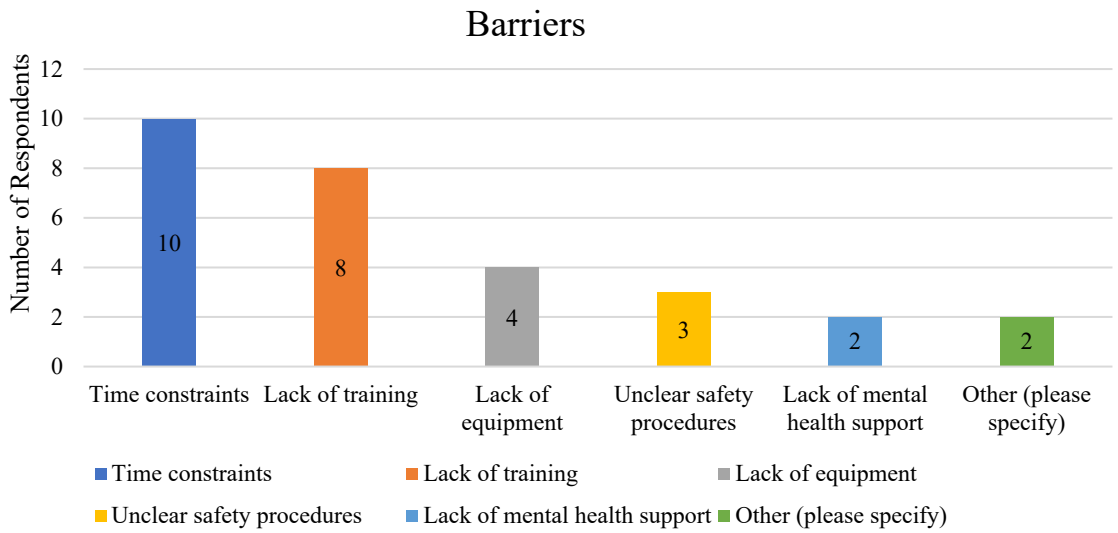

Figure 4.8 Perceived Barriers to Managing Work-Related Stress and Trauma

Self-Efficacy

All respondents expressed some degree of confidence in their abilities to manage workplace stress and implement wellness procedures. Thirteen respondents (81%) were confident or very confident about their abilities (Figure 4.9). We viewed these responses as promising because high self-efficacy has been associated with increased training participation, improved coping skills, and a stronger likelihood of applying what is learned on the job. But it also highlights a responsibility to ensure that employees have access to tools and resources, particularly those who are confident but lack formal training or experience.

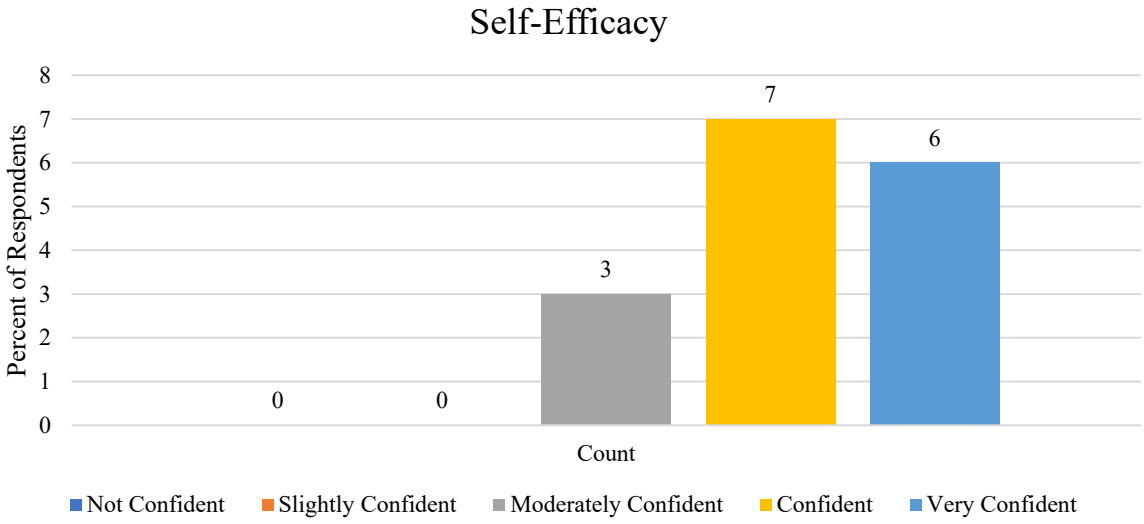

Figure 4.9 Confidence in Managing Stress and Applying Wellness Procedures

Behavioral Intention

An overwhelming majority of participants (88%) said they intended to follow wellness and safety procedures in response to future work-related stress or trauma, suggesting they may be inclined to incorporate the knowledge and use the tools introduced during training into their professional routines (Figure 4.10).

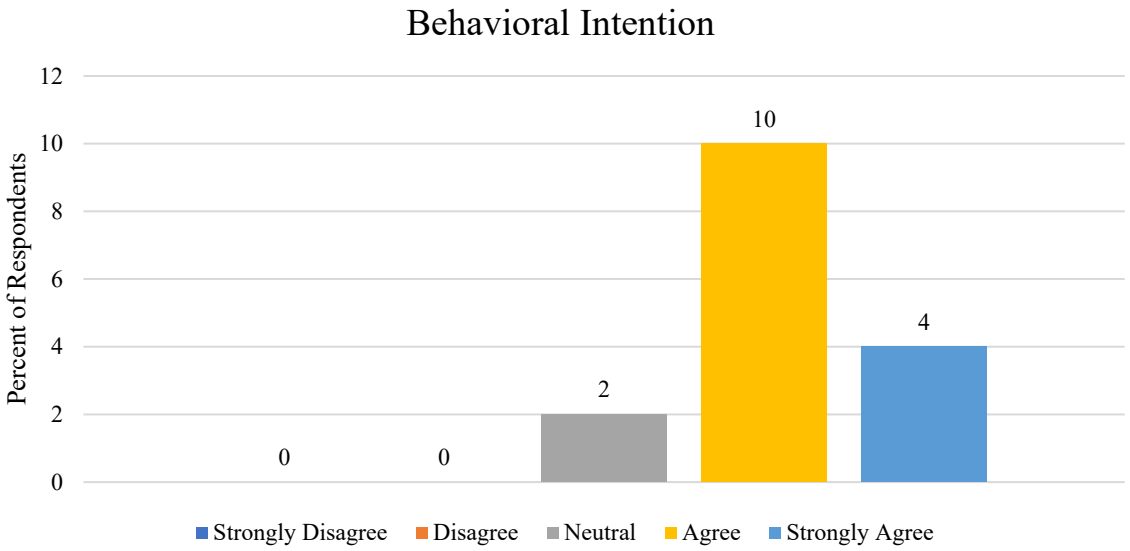

Figure 4.10 Intent to Follow KYTC Wellness and Safety Procedures

4.4 Post-Training Survey

This section describes results of the survey administered following the training. We asked participants the same questions to understand how the training impacted their attitudes, perceptions, and behavioral intentions.

Perceived Susceptibility

Following training, 13 respondents (81%) perceived it was extremely likely or somewhat likely they would experience STS or traumatic events at work (Figure 4.10). This suggests a movement toward greater awareness of occupational stress-related risks following the training.

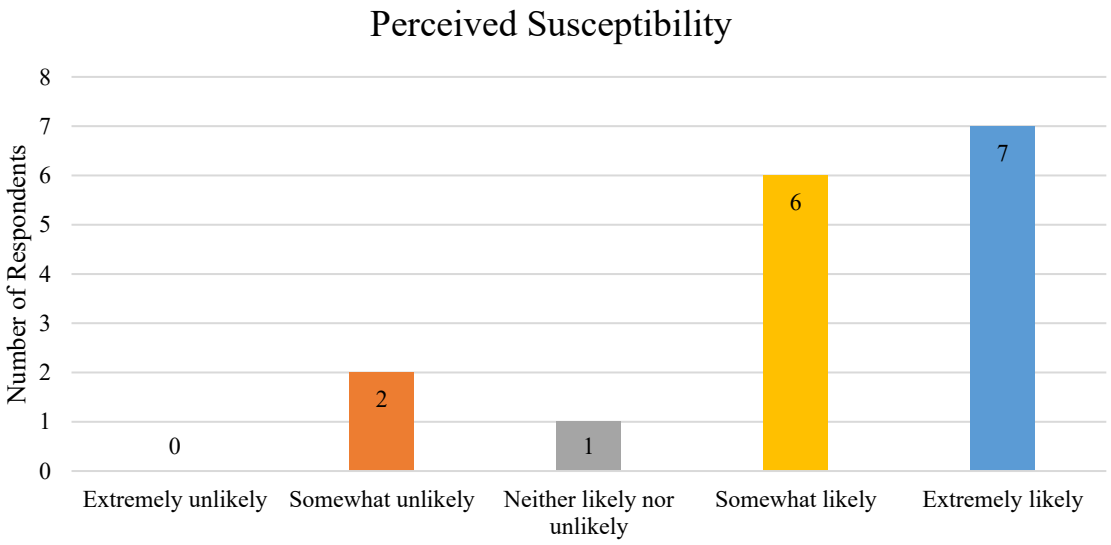

Figure 4.11 Post-Test Responses — Perceived Likelihood of Encountering STS

Perceived Severity

Eight respondents (50%) rated the consequences of STS or PTSD for themselves or coworkers as moderately serious (Figure 4.12). All but one other respondent said they are serious or very serious. The change in distribution indicates heightened awareness of and interest in the emotional and psychological consequences of work-related trauma. This change of perception is a positive since it tends to encourage employees to proactively seek support and adopt learned wellness behaviors.

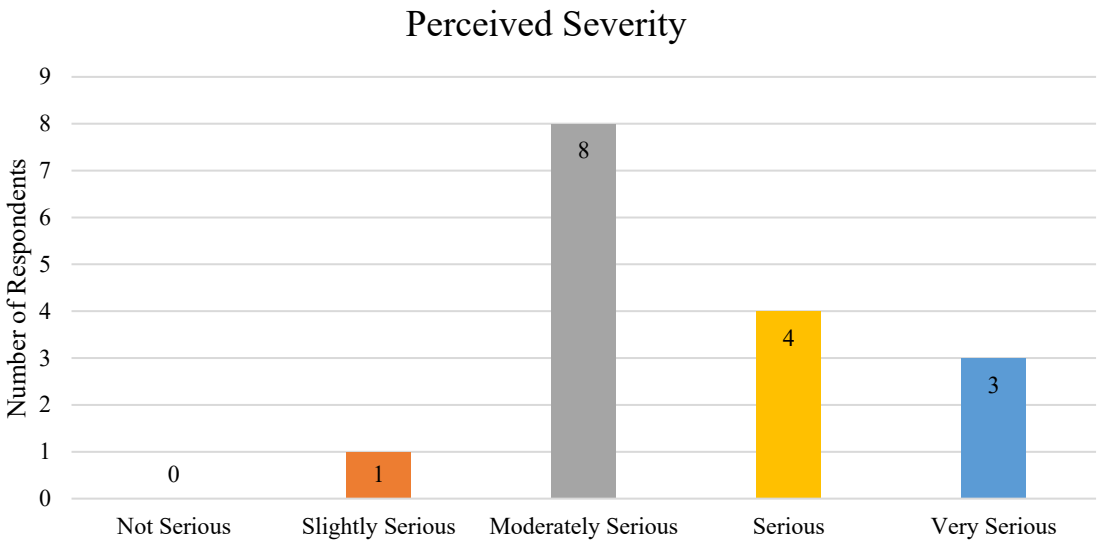

Figure 4.12 Post-Test Responses – Perceived Severity of STS/PTSD

Perceived Benefits

Following training, all respondents said it had been at least moderately beneficial, with nine (56%) viewing it as very beneficial (Figure 4.13). This indicates the training was well-received, with participants seeing it as relevant to their work experiences and useful for preparing them to handle future high-stress or traumatic events.

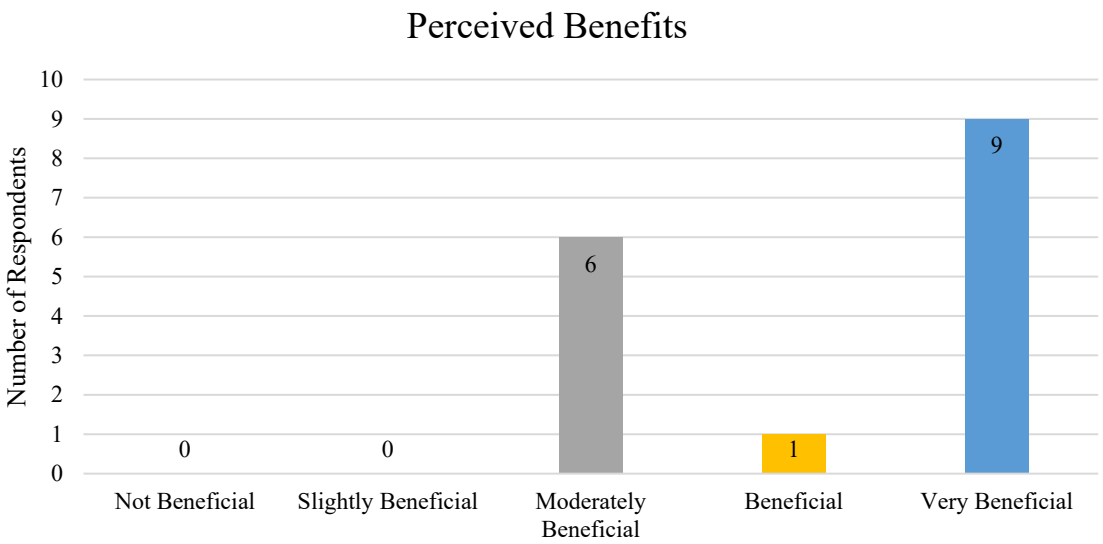

Figure 4.13 Post-Test Responses – Perceived Benefits of Wellness Training

Perceived Barriers

Eleven respondents (34%) cited time constraints most often as a barrier to managing stress or dealing with stressful or traumatic events in the workplace (Figure 4.12). This was followed by lack of training (25%) and lack of mental health support (16%). These responses highlight cultural and systemic factors that could reduce the effectiveness of mental health initiatives. Overcoming barriers such as a lack of training, resources to support them, or operational demands will make it possible to establish a sustainable culture of wellness.

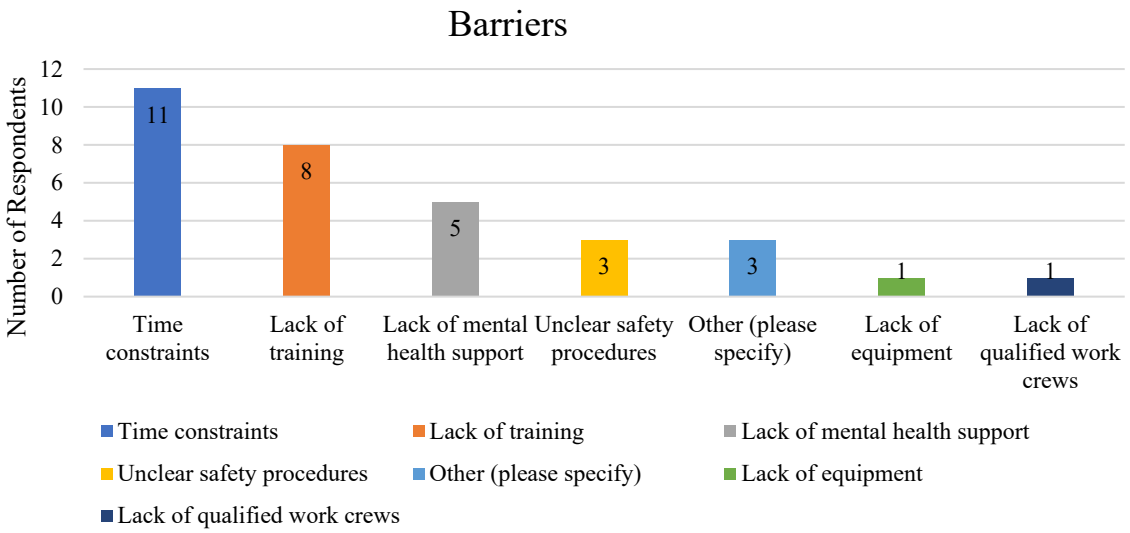

Figure 4.14 Post-Test Responses – Reported Barriers to Managing Work Stress

Self-Efficacy

Eight respondents (50%) reported feeling very confident in their ability to manage stress following a stressful or traumatic through the application of KYTC's wellness and safety procedures (Figure 4.15). All respondents felt at least moderately confident, suggesting the training had a positive outcome.

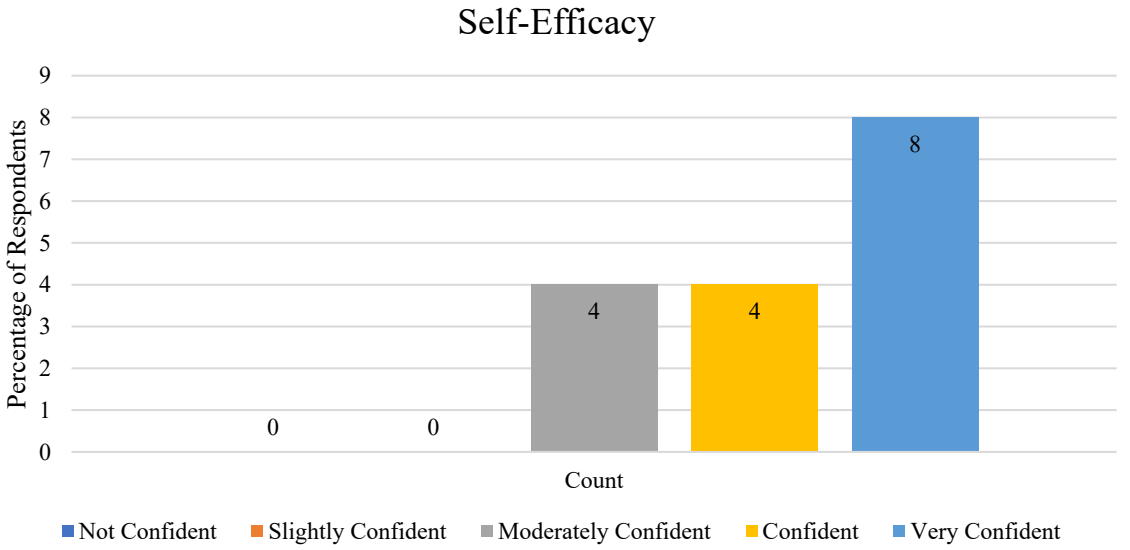

Figure 4.15 Post-Test Responses – Confidence in Managing Stress (Self-Efficacy)

Behavioral Intention

After training, 14 participants (88%) either agreed or strongly agreed with the statement that they intended to follow wellness and safety procedures to manage stress and cope with traumatic work-related events. No one

said they did not plan to implement the procedures. These results show a strong stated commitment to applying wellness strategies in practice.

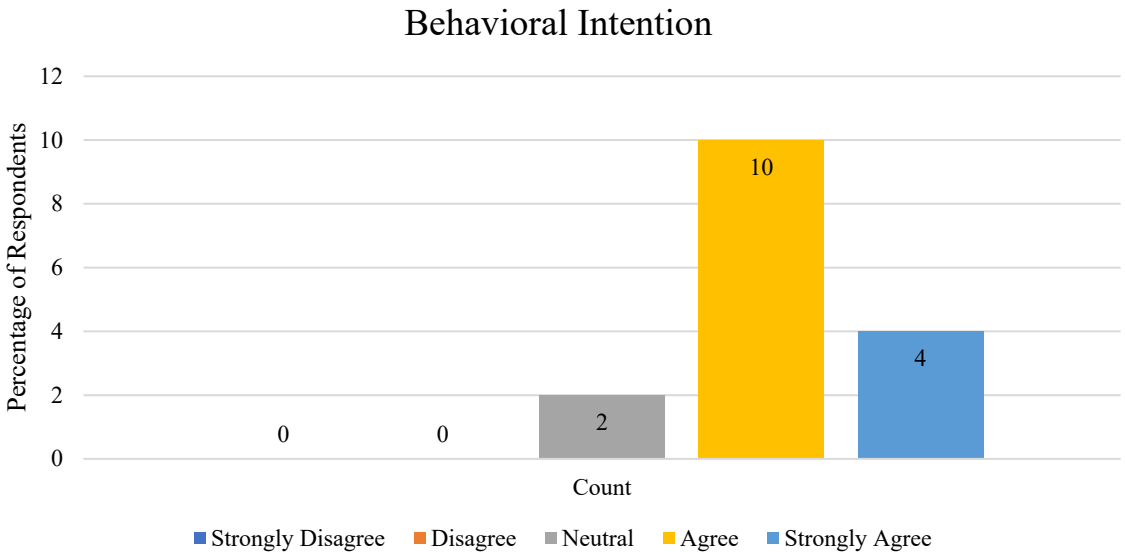

Figure 4.16 Post-Test Responses – Intention to Apply Wellness Procedures

4.5 Pre–Post Comparison Analysis

This section compares pre- and post-training survey responses. We also examined correlations between demographic variables (i.e., age group, division, and work location) and responses to generate insights into the impacts of the training across subgroups. Only respondents who took the pre- and post-training surveys were used in paired comparisons.

Perceived Susceptibility

Following training, the percentage of participants perceiving it as extremely likely they would experience STS or traumatic events at work dropped from 18% to 0%, while the percentage viewing it as extremely or somewhat unlikely climbed 9% (Figure 4.17). This suggests participants felt more equipped to manage potential stressors, or perceived their risk as lower, after the training.

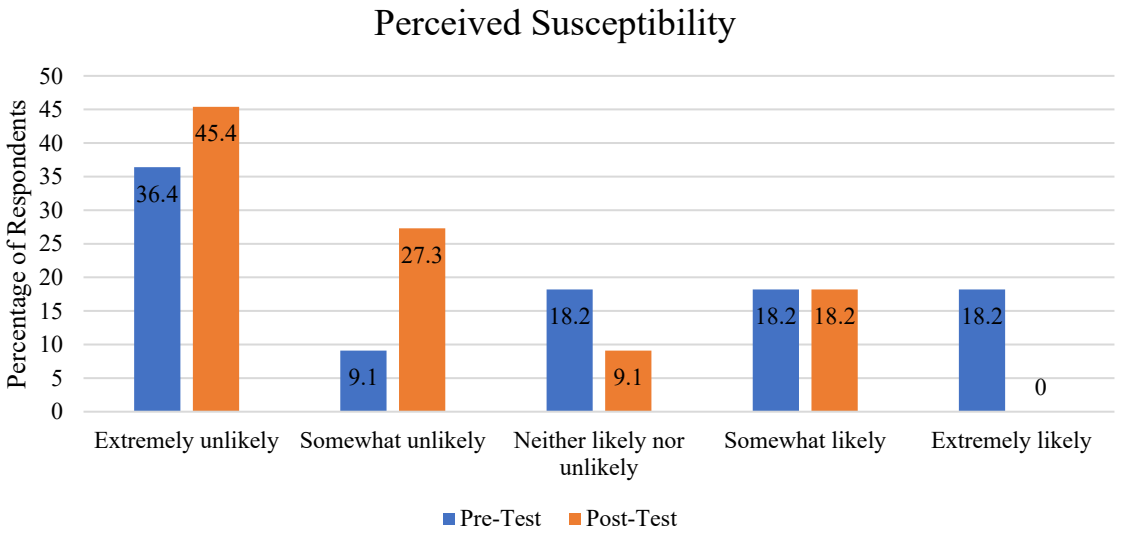

Figure 4.17 Pre- and Post-Test Comparison of Perceived Susceptibility Responses

Relationships with Demographic Variables

- Age Group and Perceived Susceptibility: No statistically significant relationship was found between age group and perceived susceptibility in either the pre-training ($p = 0.122$) or post-training ($p = 0.549$) surveys.
- Division and Perceived Susceptibility: No significant association was found between division and perceived susceptibility pre- or post-training (pre-training $p = 0.701$; post-training $p = 0.638$). This indicates stress and trauma risk perceptions are consistent across KYTC's operational units.
- Work Location and Perceived Susceptibility: No statistically significant difference was observed by work location in the pre-training survey ($p = 0.222$). In the post-test, the p-value ($p = 0.057$) approached significance, suggesting a possible emerging trend. After training, employees with field-based jobs or who split their time between the office and field perceived higher susceptibility compared to those working in office settings. This trend highlights the impact of exposure to stressful events in the field and underscores the importance of tailoring interventions to work environments.

Perceived Severity

After training, the percentage of respondents seeing the consequences of STS or PTSD for themselves or coworkers as very serious increased from 18% to 36% (Figure 4.18). No respondents chose not serious in the post-training survey, indicating the training was successful in driving home the significance of acknowledging potential risks related to unresolved stress and trauma.

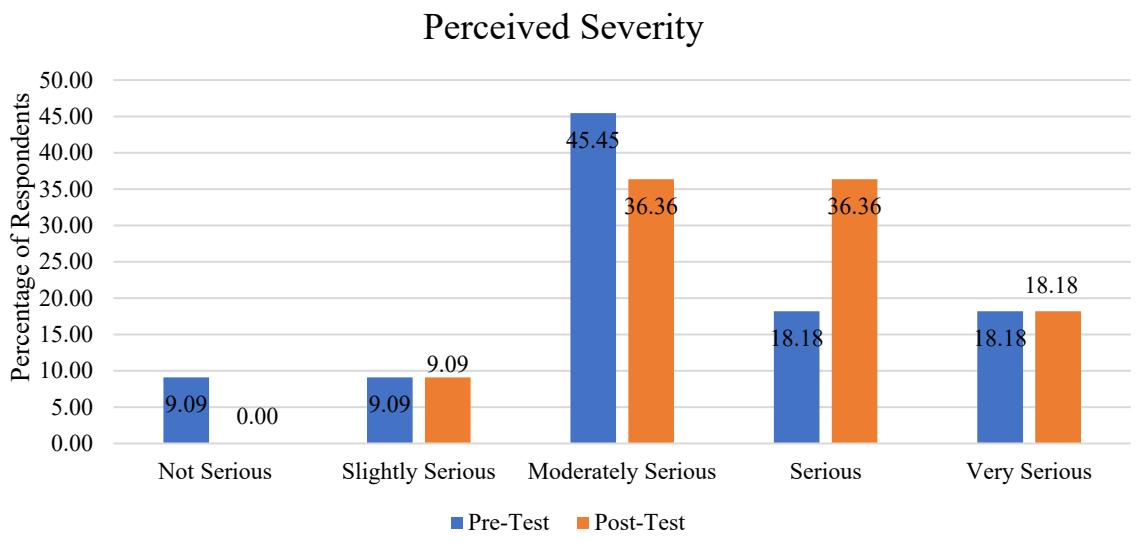

Figure 4.18 Pre- and Post-Test Comparison of Perceived Severity Responses

Relationships with Demographic Variables

- Age Group and Perceived Severity: Statistical testing revealed no significant relationship between age group and perceived severity in either the pre-training ($p = 0.590$) or post-training ($p = 0.784$) surveys. This indicates recognition of the seriousness of mental health risks was broadly distributed across different age categories before and after training.
- Division and Perceived Severity: No meaningful differences were identified across divisions before or after training (pre-training $p = 0.658$; post-training $p = 0.416$). Employees, regardless of where they work, demonstrated comparable perceptions of STS and PTSD's potential impacts.
- Work Location and Perceived Severity: Work location did not influence perceptions of severity (pre-training $p = 0.763$; post-training $p = 0.651$). Whether participants worked primarily in the field, in the office, or split

their time between the field and office, their understanding of the seriousness of workplace trauma remained consistent after training.

Perceived Benefits

After going through the training, the percentage of respondents who saw the intervention as very beneficial spiked from 9% to 65%. No respondents characterized the training as not beneficial or slightly beneficial. These trends demonstrate the training reinforced, in the minds of participants, the value of proactive mental health strategies and stress management tools.

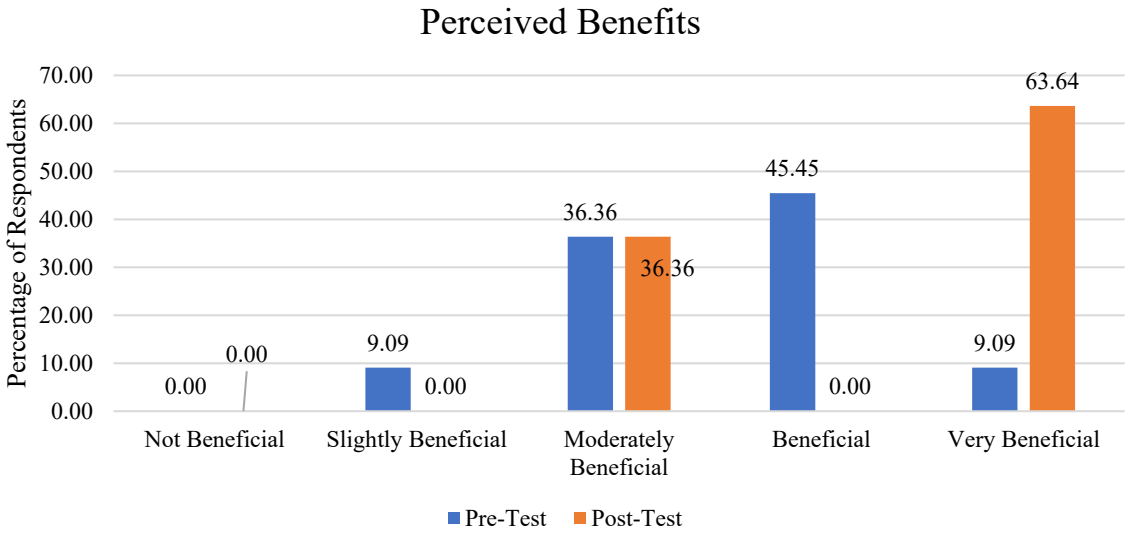

Figure 4.19 Pre- and Post-Test Comparison of Perceived Benefits of Wellness Training

Relationships with Demographic Variables

- Age Group and Perceived Benefits: No statistically significant relationship was found between age group and perceived benefits in either the pre-training ($p = 0.772$) or post-training ($p = 0.638$) surveys. This suggests that across different ages, employees consistently acknowledged the value of the training.
- Division and Perceived Benefits: Division type did not significantly influence perceived benefits (pre-training $p = 0.672$; post-training $p = 0.595$).
- Work Location and Perceived Benefits: There was no significant difference based on work location (pre-training $p = 0.718$; post-training $p = 0.493$). Whether employees worked primarily in the field, office, or in both environments, the intervention was viewed as broadly beneficial.

Perceived Barriers

Training had little impact on obstacles identified by respondents as hindering their efforts to manage stress or respond to stressful or traumatic events (Figure 4.20). Time constraints remained the leading concern, followed by lack of training and lack of mental health support. These findings hint at the potential limitations of training. While it can teach employees about stress management practices, broader organizational and cultural barriers need to be eliminated.

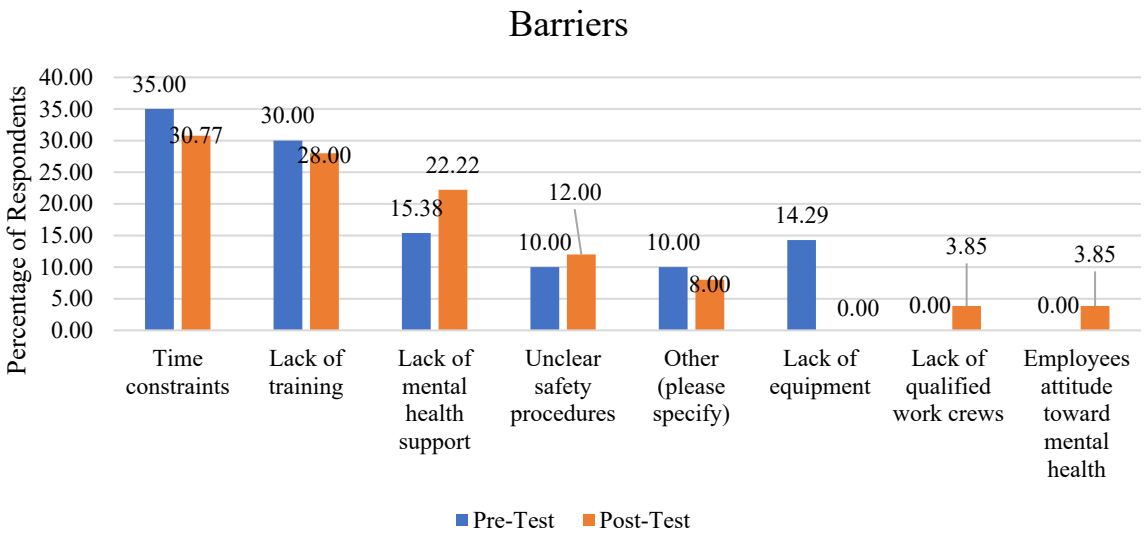

Figure 4.20 Pre- and Post-Test Comparison of Perceived Barriers

Relationships with Demographic Variables

- Age Group and Perceived Barriers: No statistically significant relationship was found between age group and perceived barriers in either the pre-training ($p = 0.598$) or post-training ($p = 0.672$) surveys. Perceived challenges were distributed relatively evenly across different age categories.
- Division and Perceived Barriers: No significant relationship was detected between division and perceived barriers (pre-training $p = 0.654$; post-training $p = 0.593$). This suggests that perceptions of barriers to stress management are shared across different KYTC departments.
- Work Location and Perceived Barriers: There was also no significant difference based on work location (pre-training $p = 0.521$; post-training $p = 0.477$). Employees working in the office, field, or in both settings reported facing similar obstacles to effective stress management.

Self-Efficacy

After training, a larger percentage of respondents (55%) felt very confident in their abilities to manage stress and follow the Cabinet's wellness and safety procedures during stressful or traumatic events (Figure 4.21). The training helped participants feel better prepared to handle challenging situations.

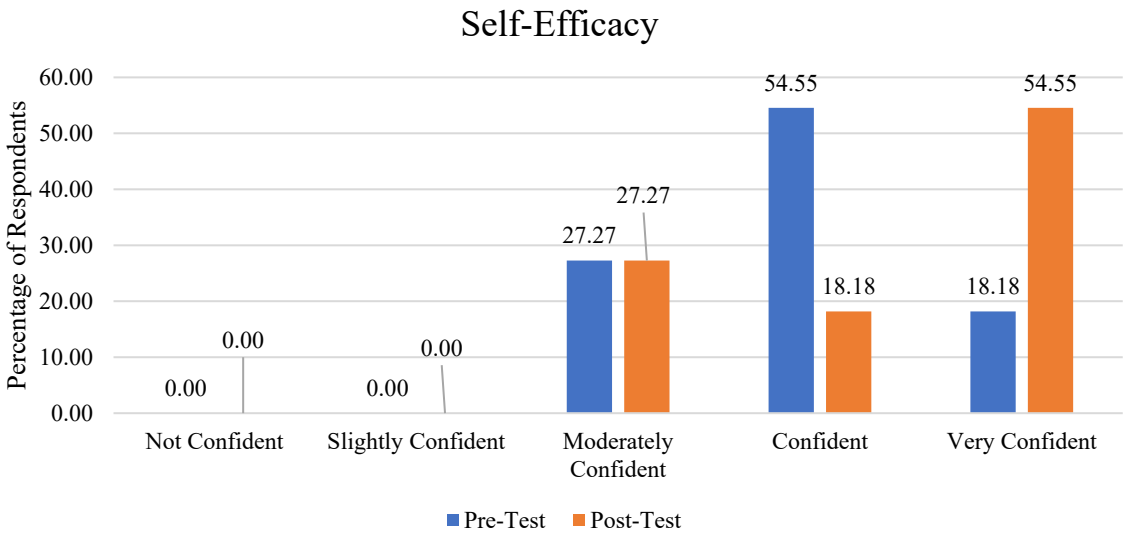

Figure 4.21 Pre- and Post-Test Comparison of Self-Efficacy Levels

Relationships with Demographic Variables

- Age Group and Self-Efficacy: No statistically significant relationship was found between age group and self-efficacy levels in either the pre-training ($p = 0.643$) or post-training ($p = 0.519$) surveys. All age groups showed similar improvements in confidence after the training.
- Division and Self-Efficacy: Division had no significant association with self-efficacy either before ($p = 0.702$) or after ($p = 0.587$) the training. This suggests that employees across different operational units benefited similarly.
- Work Location and Self-Efficacy: No significant differences were observed by work location (pre-training $p = 0.631$; post-training $p = 0.541$). Improvements in self-efficacy were seen consistently across office-based and field-based workers as well as those who split their time between locations.

Behavioral Intention

The training boosted the percentage of respondents who said they are very committed to following the wellness and safety procedures they learned about to manage stress or respond to traumatic events from 36% to 65% (Figure 4.22). This jump in percentage suggests the training had a positive impact on intended behavior.

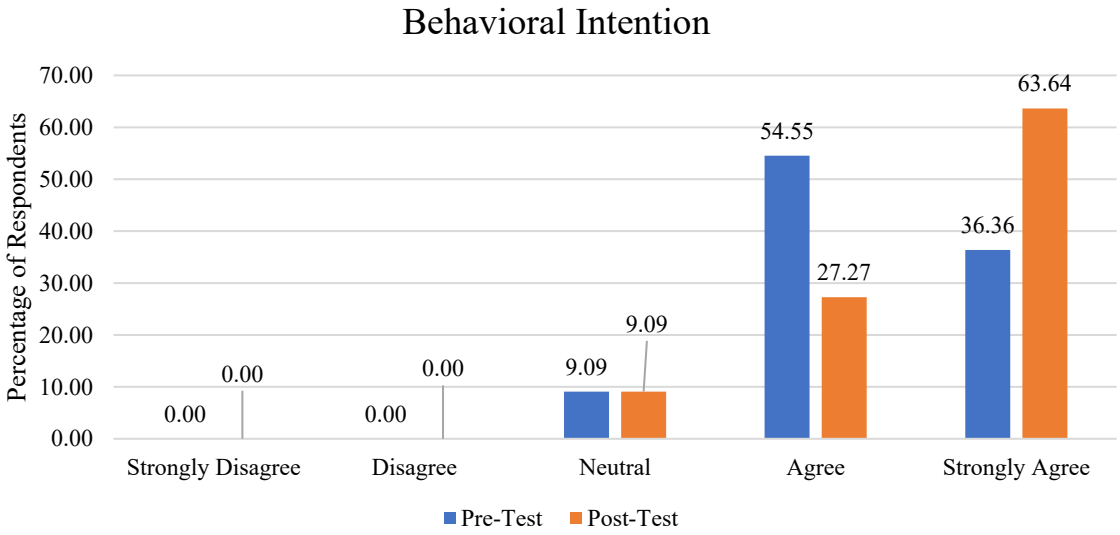

Figure 4.22 Pre- and Post-Test Comparison of Behavioral Intention Responses

Relationships with Demographic Variables

- Age Group and Behavioral Intention: No statistically significant relationship was found between age group and behavioral intention before ($p = 0.731$) or after ($p = 0.601$) the training. All age groups showed similar positive trends toward stronger intention after the intervention.
- Division and Behavioral Intention: No significant association was found between division and behavioral intention at either point (pre-training $p = 0.709$; post-training $p = 0.653$), suggesting that improvements were widespread across different organizational units.
- Work Location and Behavioral Intention: No significant differences were detected based on work location (pre-training $p = 0.617$; post-training $p = 0.538$). Both office-based and field-based workers expressed a deeper commitment to following health and safety protocols after the training.

4.6 Open-Ended Feedback from Participants

We asked participants four open-ended questions about their experiences with the training to better understand their views of what aspects of the training provided the greatest value as well as on difficulties encountered, ideas for improvement, and willingness to recommend the program to others.

Beneficial Aspects of the Training

Participants said the most beneficial aspects of the training were guidance on coping mechanisms (especially methods for coping with stress, breathing exercises, and stress mitigation), detecting signs and symptoms of stress, and techniques for calming down.

Challenges Encountered

Participants identified no significant challenges to applying the techniques they learned about. However, one participant noted that even though the strategies were good, it is hard to spare time to calm down in day-to-day high-pressure scenarios, reflecting how it can be difficult to apply knowledge in practice. Another participant noted that effective communication with all parties can be challenging when dealing with stressful events.

Suggestions for Improvement

Participants made several recommendations for improving the training: pose scenario-based questions, make wellness training compulsory following stressful events, and tailor sessions to specific groups and the stressors they are most likely to face. One respondent suggested presenting the training across KYTC to increase exposure, while another proposed incorporating brief exercises into the session (e.g., 5 – 10 minutes of breathing exercises) so participants have a clearer idea of how to put knowledge into practice.

Recommendation to Colleagues

Almost all participants reported that they would recommend the training to others. They characterized the training as presenting great information, being highly desirable, and good for those who dealing with stress-related issues. One participant emphasized that training prepares workers for what will happen, affirming the preventative focus of the session.

Chapter 5 Conclusion

This project sought to increase awareness of mental health issues faced by KYTC's employees, particularly those working in high-stress environments such as roadway construction and maintenance. When staff confront demanding situations, including accident response, traumatic incidents, long working hours, and environmental hazards, they are more likely to suffer from mental health issues like STS or PTSD. To equip Cabinet staff with strategies and tools for coping with stress and trauma, we developed and delivered a training focused on psychological wellness.

5.1 Benefits of Training

We surveyed training participants before and after the course. Both surveys contained the same questions so we could measure the training's impact. We found that the training improved awareness of stressful and traumatic workplace experiences and helped participants feel more confident in their abilities to negotiate these situations and implement stress management techniques. Following the training, participants also expressed a greater willingness to follow wellness and safety protocols in stressful situations. Nonetheless, participants continued to perceive barriers to effectively dealing with stressful and traumatic events, such as time constraints and limited support for mental health at KYTC.

5.2 Practical Applications of the Findings

Given that participants responded positively to the training, we believe the Cabinet should implement it more broadly. Recommendations for doing so follow.

- Integration into Safety and Wellness Programs: The training can be incorporated into KYTC's existing safety meetings. Given the training's positive impact on confidence and behavioral intention, reinforcing material could help sustain its impact.
- Targeted Mental Health Support: Several barriers identified by participants such as time constraints, lack of access to mental health resources, and negative attitudes toward discussing mental health highlight areas where KYTC leadership can intervene. Providing quick-reference resources in the field, increasing awareness of the Employee Assistance Program (EAP), and normalizing mental health conversations during toolbox talks should all be priorities.
- Customized Training by Role or Division: Participants suggested that future trainings could be tailored to job function or work location. For example, field workers may benefit from scenario-based training that reflects the challenges of emergency response, long shifts, or isolation. Office-based staff could learn about tools for managing high-volume stress.
- Leadership Involvement and Modeling: Encouraging leadership at every level to model wellness behaviors, attend mental wellness sessions, and endorse mental health initiatives will build culture that is responsive to staff needs. If employees perceive supervisors as making mental wellness a top priority, participation in and acceptance of these initiatives is likely to increase.
- Data-Informed Planning: KYTC can use the survey framework — which addresses susceptibility, severity, benefits, barriers, self-efficacy, and intention — as an internal evaluation tool to measure the effectiveness of future mental health or safety initiatives. It can help KYTC track improvements over time and refine programs based on employee feedback and behavior.

5.3 Study Limitations

Despite the positive training outcomes, readers should keep the following limitations in mind:

- Sample Size and Representation: Due to the small sample size (n = 21 people) who completed the training, and the smaller group of employees who took both the pre-training and post-training surveys the ability to detect statistical significance was low. While the findings should be interpreted with caution, it does not

suggest the training effect and impact does not exist, especially if tested within a larger, more diverse sample of employees. The small, convenience sample of employees who participated makes it challenging to generalize results to every KYTC employee or other transportation agencies. Self-selection bias was possible given participation was voluntary. For example, those who were more enthusiastic or concerned about mental health could be more likely to participate and complete the training program and surveys.

- Reliance on Self-Reported Data: Because surveys responses were self-reported, results could have been influenced by response errors like social desirability, exaggeration of intention, or underestimation of barriers. We guaranteed respondents anonymity to minimize this issue, but it still could have impacted their answers.
- Short-Term Impact Assessment: We have not conducted a long-term follow-up study to determine if professed changes in self-efficacy and behavioral intention will translate into enduring changes in actual behavior or if periodic reinforcement is needed.
- Limited Scope of Intervention: The training was planned as a condensed, standalone session. Although it incorporated evidence-based practices, the training's limited time duration and reach may have been too circumscribed to directly impact higher-level structural or cultural factors that impact stress outcomes (e.g., stigma related to mental health, workload issues).

5.4 Recommendations for Future Work

Based on the training's success, we have identified several opportunities to extend, enhance, and evaluate wellness interventions at KYTC:

- Broaden the Training Audience: Trainings should aim to reach a broader group of employees representing all KYTC districts and divisions, including both field and administrative personnel. Making this training Cabinet wide will nurture a culture committed to mental wellness.
- Implement Periodic Refresher Sessions: Because employes routinely confront stressful situations, providing brief refresher trainings every 6 – 12 months, or after a traumatic or stressful event (e.g., disaster response), would ensure sustained participation, reinforce coping techniques, and give staff routine access to wellness resources. This can be integrated into existing safety briefings.
- Tailor Training to Job Roles: Training content should be adapted to division or occupation (e.g., construction crews, emergency response, office staff) and incorporate real-world examples of stressors and coping techniques.
- Assess Long-Term effect: KYTC should survey participants at least 3 – 6 months after training to determine if changes in perception and behavioral intentions are sustained. Other outcomes could be assessed, such as reported stress, absenteeism, or utilization of mental health resources.
- Address Organizational Barriers: The Cabinet should eliminate barriers to dealing with stressful and traumatic situations, including time constraints, insufficient mental health resources, and stigma related to mental health. Leadership should promote wellness behaviors, provide access to resources, and foster a safe working environment.
- Develop Peer Wellness Champions: Appoint trained peer advocates to promote good mental wellness habits, send reminders, and offer informal support. This can normalize conversations about mental health and improve access to resources and advocates across multiple work groups.
- Integrate Mental Health into Policy and Safety Planning: KYTC should integrate mental health into its overall safety culture so that it receives attention alongside physical safety.

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Appendix A KYTC Employee Wellness and Safety Survey Instrument

Section 1 Demographics

1. Age:
    - Under 25
    - 25-34
    - 35-44
    - 45-54
    - 55-64
    - 65 and above
2. Gender:
    - Male
    - Female
    - Other (please specify)
    - Prefer not to say
3. What division best describes where you work at KYTC?
    a. Planning
    b. Design
    c. Construction
    d. Construction Procurement
    e. Equipment
    f. Maintenance
    g. Highway or Employee Safety
    h. Right of Way and Utilities
    i. Traffic Operations

4. What location best describes your daily duties at KYTC?
    a. Mainly office-based
    b. About split between office-based and field-based
    c. Mainly field-based

5. Years with KYTC:
    - Less than 1 year
    - 1-3 years
    - 3-5 years
    - 5-10 years
    - More than 10 years

Section 2 Pre-Intervention Questions

Purpose: To measure employees' baseline perceptions, attitudes, and intentions regarding safety incident response. These questions draw from the Health Belief Model and Theory of Planned Behavior.

- Perceived Susceptibility:

How likely do you think it is that you will encounter a stressful or traumatic event (e.g., STS) while working at KYTC?
Scale: 1 = Very Unlikely, 5 = Very Likely

- Perceived Severity

How serious do you believe the consequences of Secondary Traumatic Stress (STS) or Post-Traumatic Stress Disorder (PTSD) could be for you or your coworkers?
Scale: 1 = Not Serious, 5 = Very Serious

- Perceived Benefits

How beneficial do you believe pre-incident wellness training is for improving your response to STS and traumatic work-related events?
Scale: 1 = Not Beneficial, 5 = Very Beneficial

- Perceived Barriers

What obstacles do you perceive in effectively managing stress or responding to stressful or traumatic events at work? (Select all that apply)

  - Time constraints
  - Lack of mental health support
  - Lack of training
  - Lack of equipment
  - Unclear safety procedures
  - Other (please specify)

- Self-Efficacy

How confident are you in your ability to manage stress and follow KYTC's wellness and safety procedures during a stressful or traumatic event?
(Scale: 1 = Not Confident, 5 = Very Confident)

- Behavioral Intention

Do you intend to follow wellness and safety procedures to effectively manage stress or respond to any work-related traumatic event that occurs?
(Scale: 1 = Strongly Disagree, 5 = Strongly Agree)

Section 3 Post-Intervention Questions

Purpose: To assess how the training influenced employees' perceptions and behaviors regarding safety response. These questions will be similar to the pre-intervention questions, allowing for a direct comparison.

- Perceived Susceptibility

How likely do you think it is that you will encounter a stressful or traumatic event (e.g., STS) while working at KYTC?
Scale: 1 = Very Unlikely, 5 = Very Likely

- Perceived Severity

How serious do you believe the consequences of Secondary Traumatic Stress (STS) or Post-Traumatic Stress Disorder (PTSD) could be for you or your coworkers?
Scale: 1 = Not Serious, 5 = Very Serious

- Perceived Benefits

How beneficial do you believe pre-incident wellness training is for improving your response to STS and traumatic work-related events?
Scale: 1 = Not Beneficial, 5 = Very Beneficial

- Perceived Barriers:

What obstacles do you perceive in effectively managing stress or responding to stressful or traumatic events at work? (Select all that apply)

- Time constraints
- Lack of mental health support
- Lack of training
- Lack of equipment
- Unclear safety procedures
- Other (please specify)

- Self-Efficacy:

How confident are you in your ability to manage stress and follow KYTC's wellness and safety procedures during a stressful or traumatic event?
(Scale: 1 = Not Confident, 5 = Very Confident)

- Behavioral Intention

Do you intend to follow wellness and safety procedures to effectively manage stress or respond to any work-related traumatic event that occurs?
(Scale: 1 = Strongly Disagree, 5 = Strongly Agree)

Section 4 Additional Feedback

Purpose: To gather feedback on the effectiveness of the training and areas for improvement.

1. What aspects of the wellness training did you find most helpful? (Open-ended)
2. What challenges, if any, have you encountered in applying the stress management or safety procedures taught during the training? (Open-ended)
3. Do you have any suggestions for improving the wellness training? (Open-ended)
4. Would you recommend this training to your colleagues? Why or why not? (Open-ended)

Appendix B Pre-Incident Wellness Training (KEAP)

Note: This appendix includes key slides and summary points from the "Pre-Incident Wellness Training" delivered by the Kentucky Employee Assistance Program (KEAP). The full slide deck is available upon request.

Pre-Incident Wellness Training
Objectives
Describe Secondary Traumatic Stress (STS)
Learn the potential physiological and psychological impacts of STS
Gain knowledge about PTSD
Gain new coping strategies

Secondary Traumatic Stress (STS)
STS – physiological and psychological responses following secondary exposure to challenging events or materials.
– broadened by Dr. Levin et. al.

Secondary Traumatic Stressors

- Responding to a motor vehicle collision, fire, or medical emergency where individuals experience suffering
- Exposed to aggressive wildlife
- Experiencing/witnessing mowing or equipment accidents
- Experiencing/witnessing handheld power tool accidents
- Exposure to aggressive/hostile behavior

Other Work-Related Stressors

- Working in adverse weather conditions
- Working in remote areas
- Working extended hours alone
- Working irregular hours/holidays
- Being on-call for emergencies
- Collaborating with emergency services

Critical Incidents: are unusually challenging events that have the potential to create significant human distress and can overwhelm one's usual coping mechanisms.
Post Traumatic Stress Disorder
PTSD – a mental health condition that is triggered by a terrifying event either experiencing it or witnessing it through:

- Direct exposure
- Witnessing the trauma
- Learning that the trauma happened to a close relative or friend
- Indirect exposure to aversive details of the trauma, usually in the course of professional duties (e.g., first responders, medics)

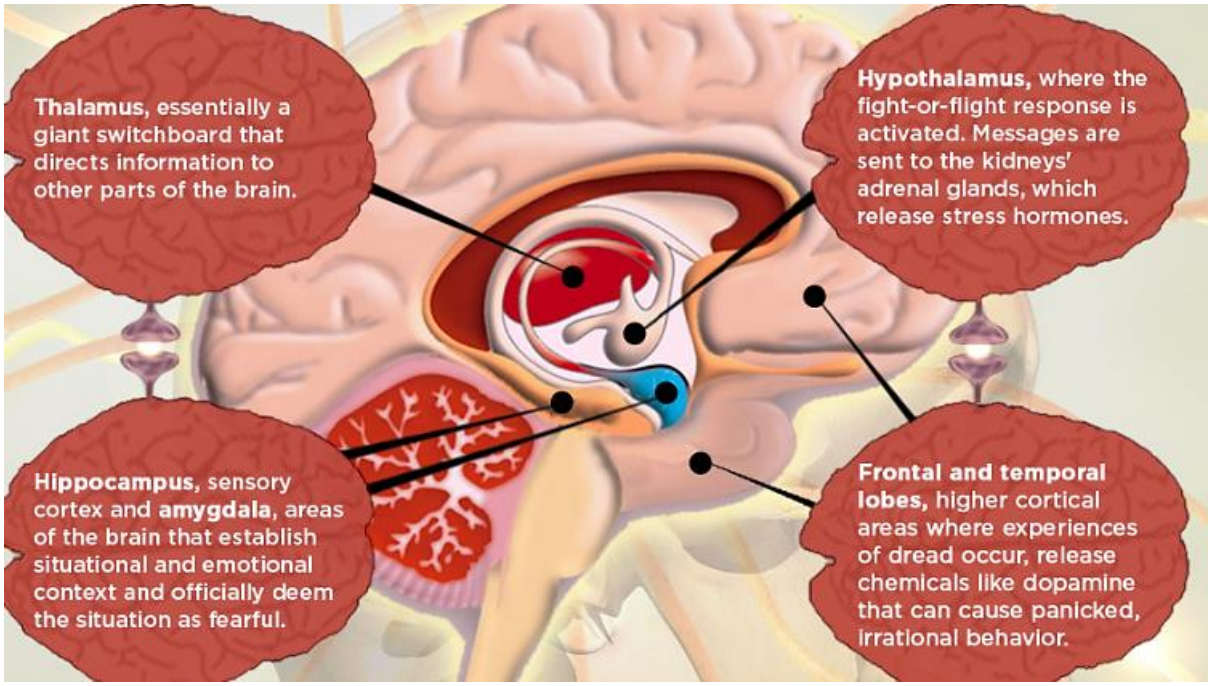
PTSD Symptoms

- Upsetting memories, nightmares, flashbacks
- Avoiding thoughts, feelings, people and places that remind you of the event
- Feeling angry, guilt, detached from others, loss of interest in previously enjoyable activities

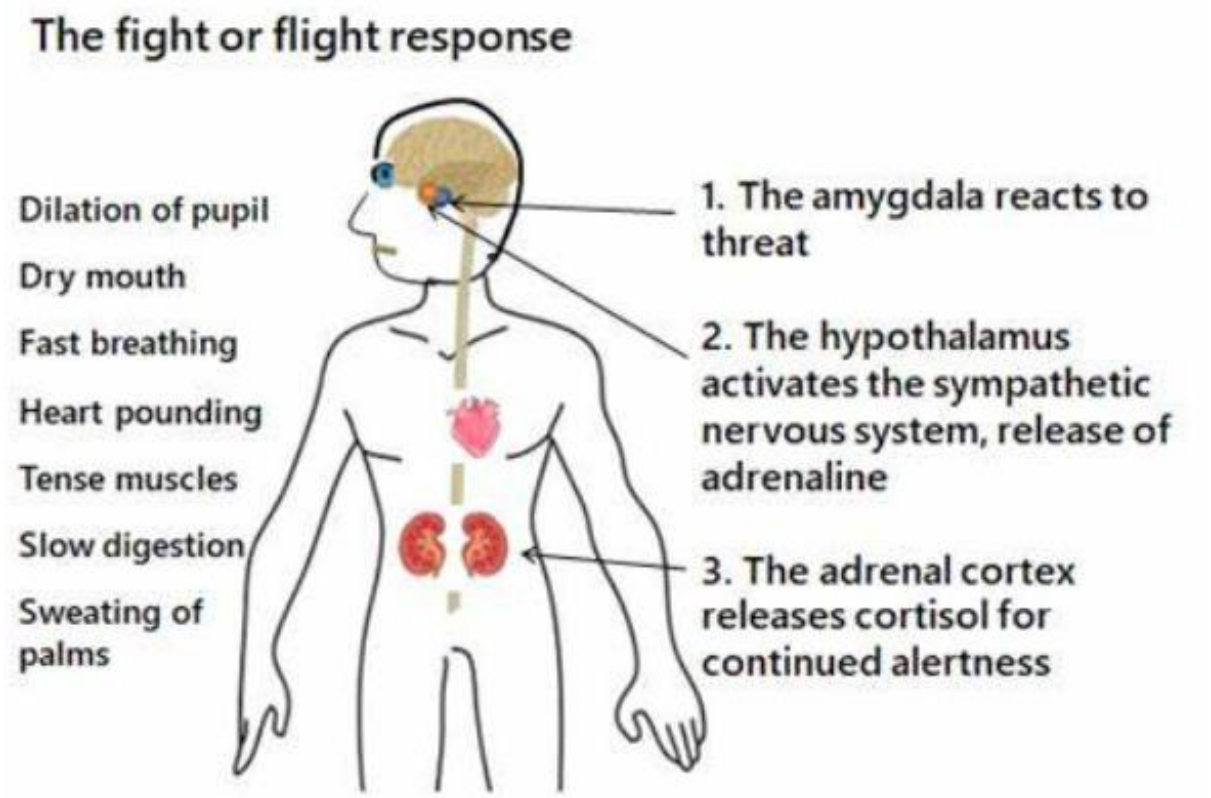
- Aggressive, self-destructive or reckless behavior, hypervigilance, exaggerated startle response, problems concentrating and with your sleep

The Stress Response: is a set of involuntary physiological changes that occur whenever we are faced with a threatening or stressful situation.

The Stress Response: Fight, Flight, Freeze



Sympathetic Nervous System



Why label STS?

- Validate your experiences
- Shows we recognize the physical and emotional symptoms of STS
- Normalizes our reactions, so we can talk about it
- If there is a “condition” there are remedies

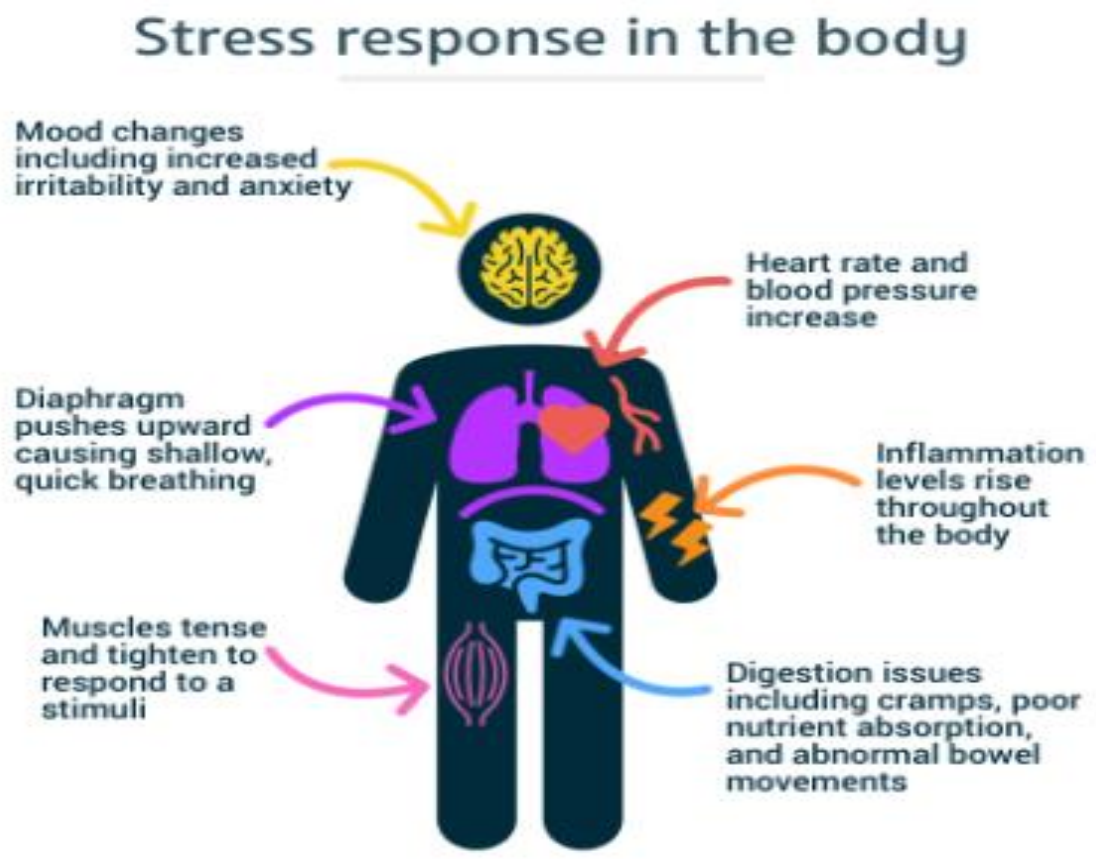
Why is this important to you?

Unmanaged Secondary Traumatic Stress has the potential to negatively impact:

- Your Physical Health
- Your Mental Health
- You Work Performance
- Your Personal Relationships

Impacts of STS

- Change in sleep habits
- Change in appetite
- Digestive issues
- Increased risk of chronic health conditions, such as:
    - High Blood Pressure
    - High Cholesterol
    - Arthritis – inflammation
    - Cardiovascular disease
    - Type 2 Diabetes



Impacts to Mental Health

- Intense or unpredictable feelings
    - Anxious, nervous, sad, depressed, overwhelmed, moody, etc.
- Changes in thoughts or behavior patterns
    - Difficulties in concentrating or making decisions, vivid memories or dreams of event
    - Self-Medicating
- Alcohol, food, prescription drugs, narcotics
- Sensitivity to Environmental Factors
    - Loud noises, smells or other environmental sensations may serve as “triggers”

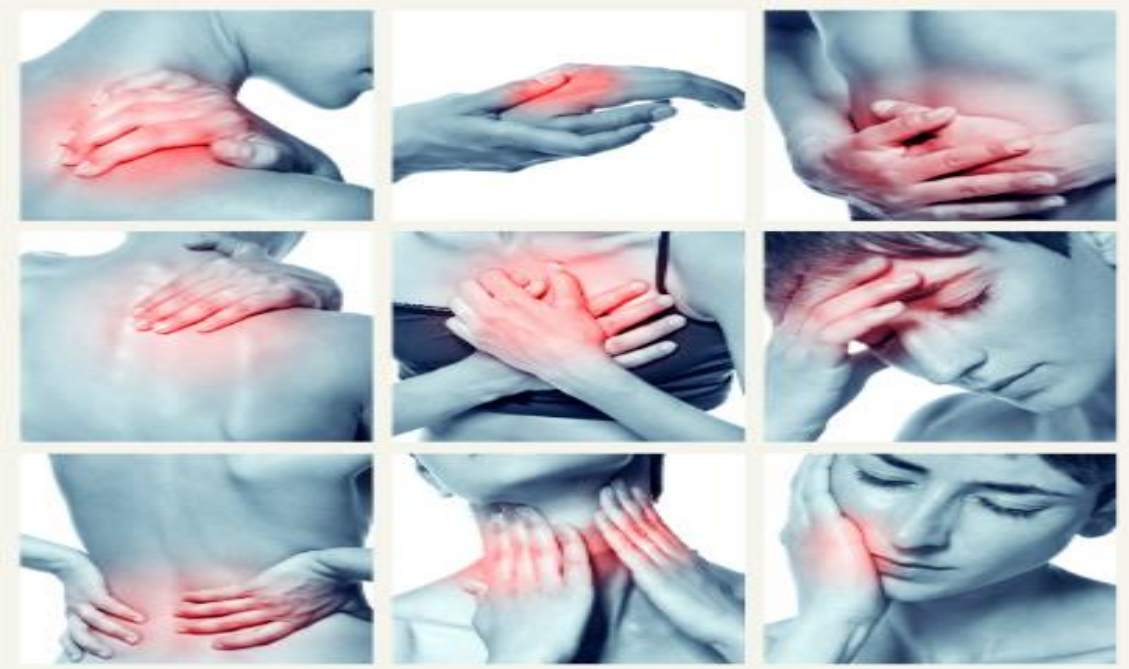
Social Impacts

- Strained Relationships
    - Increased conflict with family members, co-workers,
    - May become more withdrawn or disengaged from usual social activities
- Employment
    - Decrease work productivity
    - Increase absenteeism

Managing STS

The Good News… You can change your relationship with STS.
These symptoms only happen with UNMANAGED
Secondary Traumatic Stress

Step 1 – Identify your signs



Step 2 – Take Action

- Identify Your Support Network
- Prioritize Self Care
    - Eating Healthy

- Physical Activity
- Healthy Coping Strategies

Taking Action:

- Self-Care
  - Eating Healthy

Standard American Diet = S.A.D.

- Highly processed foods
- High in trans-fat/low in healthy fat
- High in sugar/processed fructose/artificial sweeteners
- High in grains and dairy
- Low in plants

Taking Action:

- Self-Care – Eating Healthy
  - Drink water each day
  - 15.5 cups for men/11.5 cups for women an average
  - Remove all refined carbohydrates
  - Eat
  - Proteins
  - Healthy Fats
  - Root Vegetables
  - Soluble Fibers
  - Fresh Greens
  - Fermented Foods
  - Fruit

Taking Action:

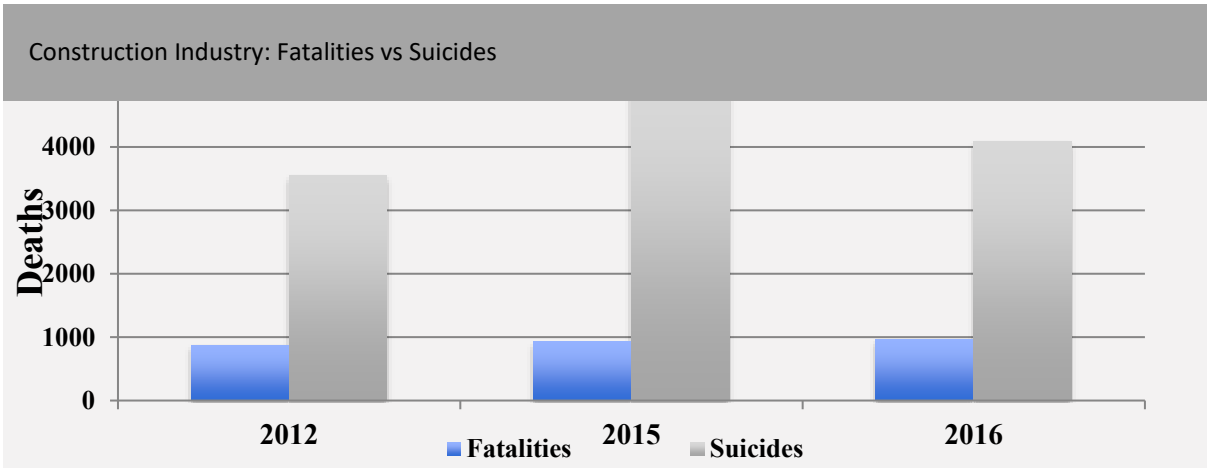
- Self-Care – Physical Activity
  - Reduces feelings of stress, fatigue, and low energy
  - Improves sleep quality
  - Releases endorphins
  - Reduces food cravings
  - Naturally decreases depression and anxiety
  - Increased cognition
  - Decreases blood sugar levels
  - Balances hormones
  - Increased strength, stamina, bone health
  - Decreases inflammation
  - Deceased risk for all age-related diseases

Taking Action:

Self-Care	
Healthy Coping Strategies	**Unhealthy Coping Strategies**
Hobbies	Instincts to just “power through”
Flexible	Avoidance/isolation
Resilient	Self-medicating
Staying connected	Bottling up/stuffing down
Gratitude journal	

Volunteering	

The suicide rate in the construction industry is 4 to 5 times higher than the jobsite fatality rate



Some interesting facts

- 62% of adults don't talk about their stress because they don't want to burden others
- 61% believe the people around them expect them to "get over it" and just move on
- 52% stated they wish they had someone to turn to for support
- Some said they had no idea where to start
- Others expressed they felt completely stressed no matter what they tried

Three Coping Strategies

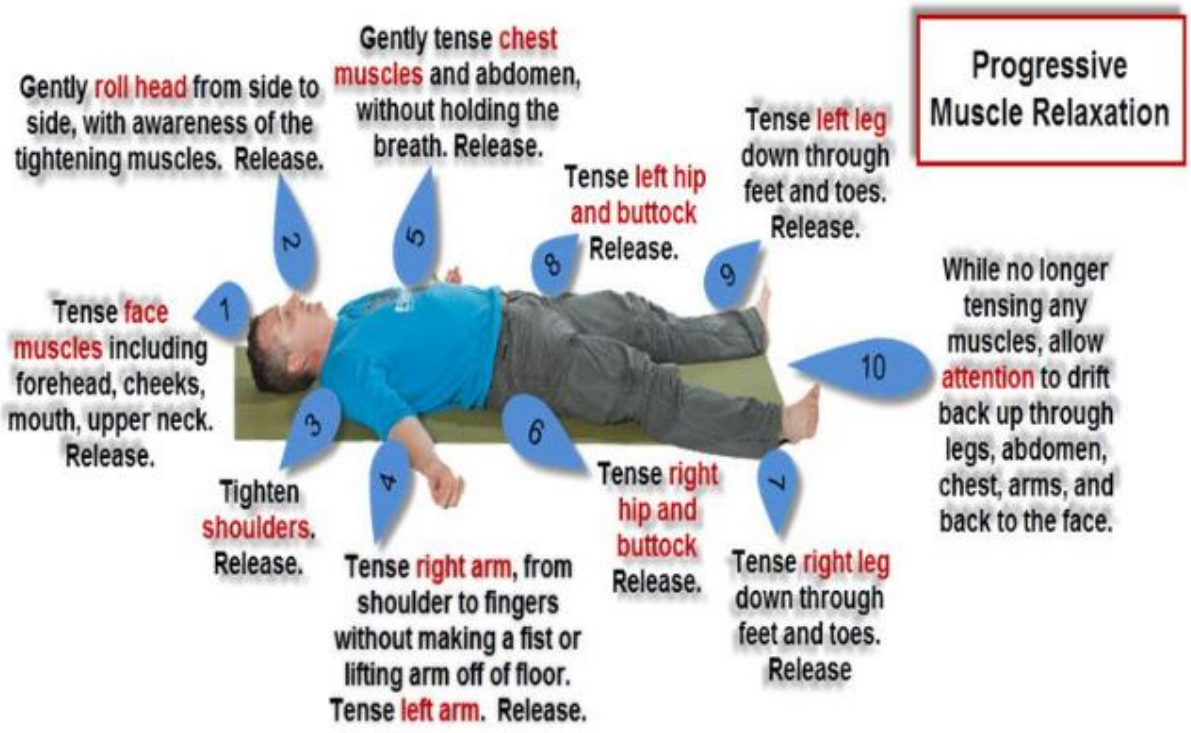
- Progressive Relaxation and
- Stretching
- Combat Breathing
- Mindfulness

Why All Three?

Your mind cannot relax if your body is tense or stressed.

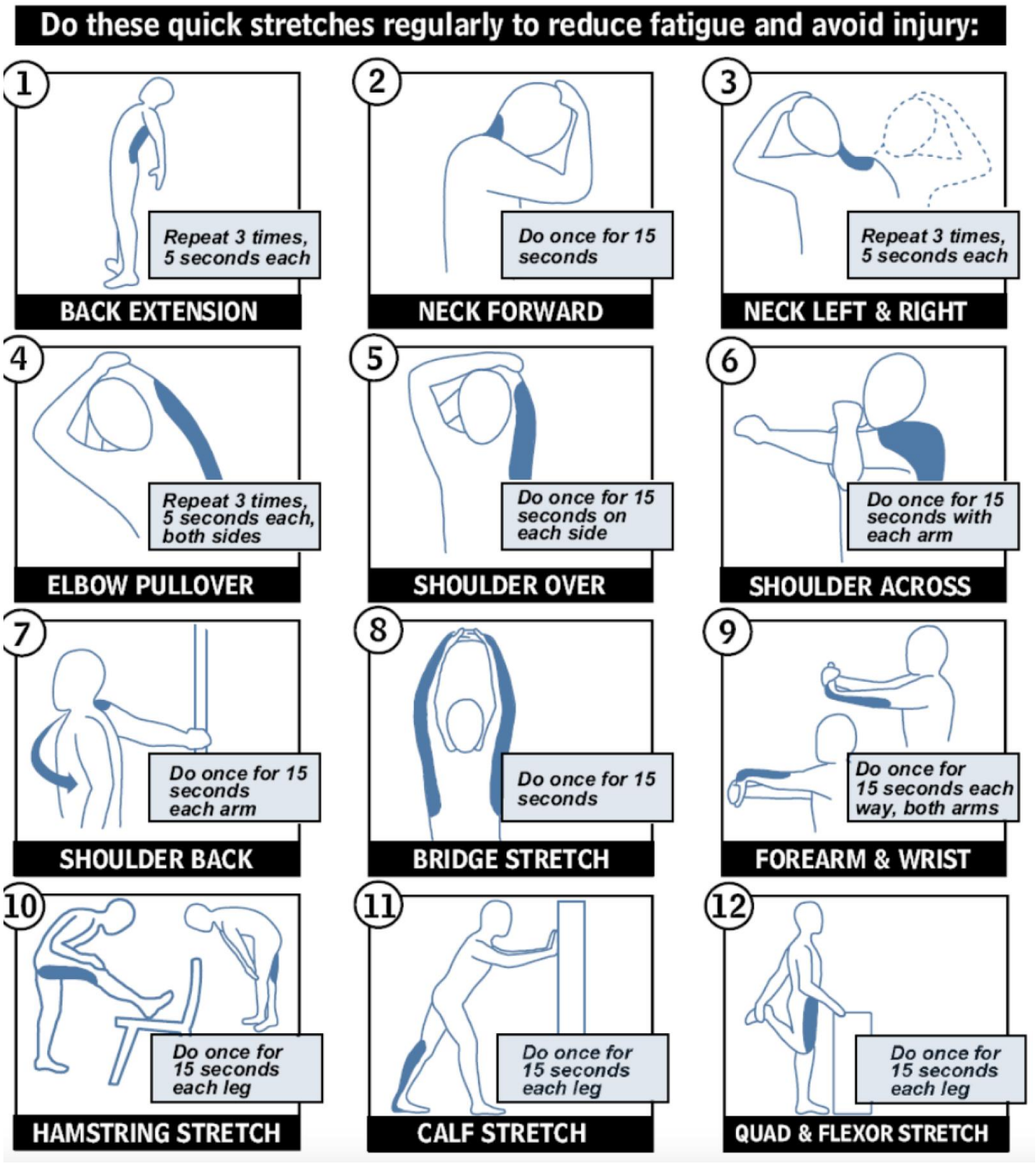
Your body cannot relax if your mind is stressed or distracted.

Progressive Relaxation



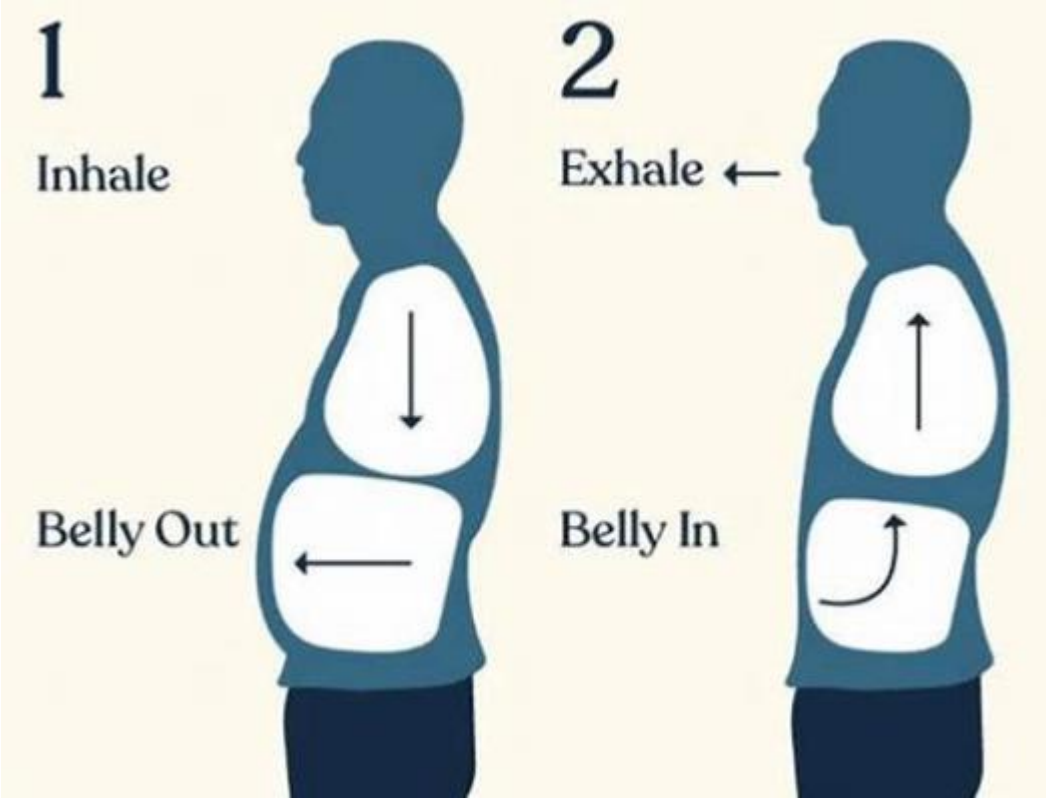
Stretching

- Improves your performance in physical activities
- Decreases your risk of injuries
- Helps your joints move through their full range of motion
- Increases muscle blood flow
- Enables your muscles to work most effectively
- Improves your ability to do daily activities



Combat Breathing

- Breathe in through your nose for a count of four
- Hold your breath for a count of four
- Exhale through your mouth for a count of four
- Hold your breath at the bottom of the exhale for a count of four
- Restart the cycle.



Mindfulness: requires overcoming the natural tendency of the mind to scan endlessly and think of new things.

Mindfulness: is the practice of being fully present in the moment, paying attention to your thoughts, feelings, and sensations without judgment.

When To Seek Help

- Duration of Symptoms
- Intensity of Symptoms

Additional Resources

- Kentucky Employee Assistance Program
  - 1-800-445-KEAP or 502-564-5788
- 988 Kentucky's 24-hour crisis line to assist with mental health, substance abuse and suicide prevention.
- LiveHealth Online – Free mental health resource through your State health insurance

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