

ABSTRACT

THESIS: A MENTAL TOUGHNESS INTERVENTION TO MITIGATE STRESS IN
FIREFIGHTERS

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Abstract

Firefighters work in an environment in which they are constantly exposed to stressful situations. Exposure to acute and chronic stress have shown to have dire effects on firefighters, including an increased risk of cardiovascular disease (Cardiovascular related health problems are the largest cause of death in firefighters), as well as burnout. Burnout is becoming a prominent issue in the fire service, as increasing emergency responses and decreasing participation make the job much more demanding. There is evidence in the literature to support mental toughness as an effective factor in combatting the physical and psychological consequences of stress, as well as increased organizational performance. However, no current research evaluates the effectiveness of mental toughness on these factors in a population of firefighters. The present study examined the effectiveness of a three-week, six session mental toughness intervention on stress perception and burnout in 15 firefighters located in the Eastern United States. The Mental Toughness Index (Gucciardi et al., 2015) was used to assess mental toughness, the Firefighter Assessment of Stress Test (Schuhman et al., 2021) was used to assess firefighter stress

perception, and the Oldenburg Burnout Inventory (Demerouti et al., 2003) was used to assess burnout. Participants were asked to perform a self-report questionnaire assessing their organizational performance, defined by reported absenteeism. Creating an effective mental toughness training program for firefighters can help address two major issues in the fire service, burnout and stress while also potentially increasing organizational performance, helping firefighters become prepared to successfully handle the physical and mental stressors faced while performing their job. Preliminary analysis showed no significant differences in mental toughness, burnout, perceived stress, or work performance between groups at baseline. Repeated Measures ANOVA analyses supported the effectiveness of the mental toughness intervention on mental toughness ($p < .001$), burnout symptoms ($p = .002$), perceived stress ($p < .001$), and work performance ($p = .008$). Correlational analyses yielded significant relationships between mental toughness and burnout ($r = -.573$). No significant relationship was found at baseline between mental toughness and stress perception. However, a significant relationship was found post-intervention between mental toughness and stress perception ($r = -.507$). Similarly, no significant relationship was found between mental toughness and work performance at baseline. However, a marginally significant relationship was found between mental toughness and work performance post-intervention ($r = -.354$). Implications for this study support the efficacy for utilizing mental toughness interventions to address burnout, stress perception, and work performance in a firefighter population.