

Uses of mindfulness in high stress experiences



**ASSIGN
BUSTER**

Article Critique: Number Two

Overview

This study sought to link mindfulness practice to avoiding decreases of positive affect during high stress experiences. This study found that working memory capacity is depleted after high-stress pre-deployment training and that mindfulness training helps replete working memory capacity. This study failed to conclude that working memory capacity boosted by mindfulness training would increase positive affect. This study suggests interesting capacity of mindfulness training, but its design and methods are lacking integrity. This study seemed to capitalize on opportunity for field research within the military. Future studies should utilize random assignment and a factorial design.

Abstract

The purpose of this study was to explore if mindfulness training could elevate working memory capacity after its weakening from difficult experiences. The authors studied 2 military units ($n = 48$) and a group of civilians ($n = 12$). They gave one of the units Mindfulness training ($n = 31$) and the other was the military control ($n = 17$). The authors give no indication as to how the participants were selected in the abstract nor do they formally make mention of the study design. Both military groups were studied during high stress pre-deployment practices. The experimental military group was exposed to 8 weeks of a mindfulness training course and supplemental practice. All groups working memory capacity was measured before and after the experiment. Those military personnel who adhered to

<https://assignbuster.com/uses-of-mindfulness-in-high-stress-experiences/>

high levels of Mindfulness Training practice had increases to their working memory capacity and were less affected by high-stress experience. It is concluded that the negative affect of high-stress experiences could be prophylactically avoided with Mindfulness training.

Introduction/Literature Review

The authors of this paper cite prior studies that elude to mindfulness training being an effective tool in stress reduction, depression, and even protecting against future psychosocial grievances. Because mindfulness training has recently had such clinical success, this study sought to explore these findings with a population directly at risk. Military personnel are put through rigorous psychological and emotional training prior to deployment as a form of conditioning. Prior research brings to light lessened cognitive functioning as a side effect of these conditions. The authors focus on wanting to address specifically this decreased mental capacity in service members with a nod towards the findings being generalizable. The hypotheses of this study were threefold. The authors posit that working memory capacity would be depleted after high-stress pre-deployment training, that mindfulness training will help working memory capacity, and that working memory capacity boosted by mindfulness training would positively affect positive affect.

Method

Participants

Participants of this study were 2 units of US Marines and a group of civilians. The group who received the mindfulness training was chosen because they

asked for the training. The civilian group was chosen because they were used in another mindfulness study. Neither military unit had mindfulness practice experience. The age of the experiment group had a mean age of 30 years, the age of the control military group had a mean of 25 years, and the civilian group had a mean age of 34 years. There is no mention of the socioeconomic, race, or ethnicity of these groups. 2 participants of the mindfulness training unit were excluded from the study for not following directions. Informed consent was acquired before the study started.

Design

The design used for this study was a 2 independent variables between-subjects design. It was not a true between-subjects factorial design because all subjects did not get all independent variables. For example, a civilian group did not get mindfulness training. The participants in this study were assigned based on prior assignment and the mindfulness training group had, prior to the study, requested mindfulness training. 2 of these groups were active military members under high-stress situations. 1 control group represented a true control without the pre-deployment environment. This 3 group, 2 control groups design was important to study mindfulness training against high-stress experiences and a control.

Procedures

It is unclear where this study was conducted. The mindfulness training technique used was the Mindfulness-Based Mind Training. This was an 8-week course with weekly meetings and a silent retreat. Participants were also tested using the Ospan task to measure working memory capacity. They

<https://assignbuster.com/uses-of-mindfulness-in-high-stress-experiences/>

were also tested with two scales from the PANAS: positive and negative affect. The authors do not make clear the complete sequence of events of this study. They do make note of using other instruments beyond the ones mentioned. The mindfulness technique used was an offshoot of the established MBSR protocol. The technique used was designed to be more applicable to the military population. Using this technique calls to question the external validity of the findings of this study. The authors also do not elaborate on any checks in place to guarantee the integrity of their conditions.

Discussion

The authors conclude that pre-deployment has adverse effects on working memory capacity. They found that the mindfulness training may protect against pre-deployment cognitive degradation. They failed to confidently conclude that the mindfulness training improves affective experience because the data showed that the mindfulness training improved negative affect but not positive affect.

This study is limited in its generalizability given the technique chosen for mindfulness training. Because a novel technique was used, and a civilian population was not admonished the training, the results for a wider population can not be assumed beyond military personnel. In order to truly test the results of the study, a true factorial between-subjects design must be followed. Civilians in high-stress experiences must be studied using the MBSR next to the results of this study. This technique may benefit this

sample but not a wider population trying to improve their working memory capacity, cognitive control, and positive affect.

References

- Jha, A. P., Stanley, E. A., Kiyonaga, A., Wong, L., & Gelfand, L. (2010). Examining the Protective Effects of Mindfulness Training on Working Memory Capacity and Affective Experience. *Emotion*, *10* (1), 54-64. <https://doi-org.libproxy.temple.edu/10.1037/a0018438>