INTRODUCTION

This study evaluated the effectiveness of mindfulness meditation for chronic musculoskeletal pain in U.S. Veterans using the Defense and Veterans Pain Rating Scale (DVPRS). This is the first study to research mindfulness meditation (MM) as an intervention for chronic pain.

METHODS

Study participants were recruited at the Washington, DC Veterans Affairs Medical Center (DC VAMC). IRB and R&D Committee approvals were granted. Inclusion criteria included age of 20-60 years old, male gender, deployment to OEF/OIF, mild or moderate TBI, and self-report of 20 or greater on the numeric rating scale (NRS) for pain. Veterans were randomly assigned to receive 8 weeks of iRest (case group) or standard care alone (control group). Most participants were most frequently diagnosed health condition in this military cohort, exceeding any other medical or psychological concern (1, 2).

RESULTS

The DVPRS was recently developed for use in military and veteran populations to provide more descriptive pain data than the commonly used numeric rating scale (NRS). The DVPRS measures pain intensity using an NRS enhanced by visual cues and verbal descriptors to improve interpretability of incremental pain intensity levels (Figure 1). The DVPRS also includes 4 supplemental questions to assess perceived interference of pain with general activity, sleep, mood and stress (Figure 2). Limited information exists regarding the validity of the DVPRS and is used clinically at VA medical centers nationwide. Developed by Dr. Richard Miller, iRest promotes deep relaxation through breathing, guided imagery, and progressive muscle relaxation techniques.

The interference subscales of the DVPRS (activity, sleep, mood, stress) all decreased from baseline to endpoint (Table 2; Figure 5). The DVPRS-NRS (mean ± SD) for pain intensity decreased significantly for sleep, mood, and stress. The DVPRS interference subscales all decreased from baseline to endpoint (Table 2; Figure 5). The DVPRS-NRS (mean ± SD) for pain intensity decreased significantly for sleep, mood, and stress. The DVPRS interference subscales all decreased from baseline to endpoint (Table 2; Figure 5). The DVPRS-NRS (mean ± SD) for pain intensity decreased significantly for sleep, mood, and stress.

CONCLUSION

Findings from this pilot study support the potential effectiveness of the iRest for managing chronic pain in a real-world setting. For both the DVPRS and NRS, modestly important and statistically significant reductions in pain interference were observed in veterans receiving iRest. The results across pain measures in this study (0.00 = 0.80) were comparable with pain intensity reductions reported in other MM studies (6.8 - 44.8% = 0.00 - 0.80).

ACKNOWLEDGEMENTS

We are grateful to the iRest invention team for their dedication to helping those living with chronic pain after TBI. Further research is warranted on larger samples to study the validity of the DVPRS and confirm the effectiveness of iRest for managing chronic pain.

REFERENCES