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The Effects of a Brief, Daily Mindfulness Meditation Intervention on Cardiometabolic Risk Factors in People with High-Stress, Sedentary Jobs

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Abstract:

Introduction: Cardiometabolic disease is a growing national and global concern. Mindfulness-Based Stress Reduction (MBSR) is a non-pharmaceutical stress-reduction program shown to reduce cardiometabolic risk factors, but is very time-intensive. An abridged MBSR program may be helpful in reducing cardiometabolic risk. This study examined whether a shortened, low-dose meditation intervention would yield similar effects to those observed in in standard MBSR programs. **Methods:** In this uncontrolled study participants (n = 12; mean age= 49.36 ± 9.68) from the Saratoga Springs, NY community listened to a 15-minute guided meditation CD every day for 7 weeks. Pre and post-testing measurements consisted of heart rate, SBP, DBP, body fat (%), perceived stress, fasting blood glucose (FBG), and area under the curve (AUC). **Results:** DBP showed a significant increase from baseline to post-testing (p = 0.01). No other variables changed significantly. Post Hoc analysis showed that SBP decreased in participants who attended > 5 meetings compared to participants who attended < 5 meetings (p = 0.052). **Conclusion:** 7 weeks of a daily 15 - minute mindfulness meditation intervention did not induce clinical changes in perceived stress and physiologic markers of cardiometabolic risk. Compliance and amount of practice may be critical aspects in the efficacy of mindfulness meditation as a preventative measure against cardiometabolic disease. Future studies should examine the same variables with a less radically deviated mindfulness meditation dosage. A major emphasis should be placed on daily compliance.