Comparison of Interoceptive Awareness and Equanimity Based on Heart Rate Variability (HRV) Between Women Who Practice Yoga and Those Who Do Not

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Extended Abstract

Aim
The aim of this study is to compare two indicators of interoceptive awareness and equanimity between yoga practitioners and non-practitioners.

Methodology
During April and May of 2022, this fundamental research study was conducted in Tehran at the laboratory of the Faculty of Psychology and Educational Sciences at Tehran University using a post-event methodology. The target population comprised of regular yoga practitioners (n=17) and non-practitioners (n=16). Since more than two months ago, members of the yoga group have attended yoga classes for at least two hours per week under the supervision of a yoga instructor. Participants completed the Multidimensional Assessment of Interoceptive Awareness (MAIA), which measures interoceptive awareness and its eight subscales (noticing, not-distracting, not-worrying, attention regulation, emotional awareness, self-regulation, body listening, and trusting). In addition, they filled out the Beck Anxiety Inventory and Beck Depression Inventory. After completing the questionnaires, the heart rate variability (HRV) of each participant was recorded for five minutes during a quiescent state in order to measure equanimity. HRV was used as a specific indicator of equanimity.

Findings
All data were analyzed between groups using the covariance test (to control anxiety and depression scores) in IBM SPSS Statistics 26. Interoceptive awareness and four of its subscales (Attention Regulation, Self-Regulation, Body Listening, and Trust) were significantly different between these two groups, according to the results. LF-HRV index differed significantly between the two groups based on comparison of HRV in the quiescent state. Resting LF-HRV was lower in the group that practiced yoga compared to the other group.

Conclusion
The difference between the two groups in MAIA shows that yoga practitioners have a more conscious perception of their inner emotions and a broader comprehension of their inner physiological conditions than the other group. Yoga practice may improve the ability to sustain and control attention to bodily sensation and the ability to regulate psychological distress through attention to bodily sensations, as indicated by the difference in scores on four subscales. It may also result in actively listening to the body for insight and perceiving the body as safe and reliable. Additionally, the difference between the two groups in HRV level indicates that the significant difference between the two groups in LF-HRV is evidence of the increased activity of the sympathetic nervous system in the group without yoga practice. This data demonstrates various autonomic nervous system activities, which could be interpreted as evidence for the effect of equanimity. As a consequence of this study, yoga could be used as a viable method for enhancing interoceptive awareness and equanimity.

Keywords: Equanimity, Heart Rate Variability, Interoceptive Awareness, Yoga.