

Development and testing of BellowTrack: A mindful breathing tracking and training mobile application for athletes

Aisyah Latib, Ying Hwa Kee

Nanyang Technological University, -, Singapore

While mental skills training has been known to be effective for the enhancement of athletic performance, a key challenge has been for the introduction of such skills to be accessible to athletes. To this end, smartphones had been used for implementing mindfulness training, making it more accessible for athletes to adopt certain aspects of mental skills. In this study, we present the initial development, implementation and evaluation of a smartphone based application called BellowTrack, primarily used to monitor and assess athlete's mindfulness of breathing. Essentially, while lying in a supine position for five minutes, participants tap on the screen of the app as accurately as possible on each out breathe. The instruction was for the participants to be mindful about repetitively paying attention to tapping on the screen of the app as they breathe out. The time the screen was tapped was recorded alongside the accelerometer data of the phone for mapping of events as a quantifiable indicator of mindful attention. Forty-nine individuals utilized the BellowTrack for five consecutive days and completed the Mindfulness Attention Awareness Scale (MAAS) scale as part of the study. While the results did not suggest any significant link between mindfulness of breathing and MAAS scores, the descriptive findings in terms of usability and participants' satisfaction in using smartphones for mental training suggests that such an approach adopted in BellowTrack is feasible and worthy of pursuit. The challenges and learning arising from this research would be shared, particularly in relation to how this app can be used as a mental training task for athletes. Future studies could look at how this particular application may serve as an introduction to mindfulness practice as a mental skill for athletes without explicitly teaching or explaining what mindfulness entails.