

# Analysis of the Effects of Postural Feedback Training on Mental Health

Maintaining mental health is an important issue in today's society. Exercises such as aerobic exercise, strength training, and yoga have been shown to be effective in maintaining and promoting mental health. However, not everyone can easily perform such exercises in their daily lives without special equipment or abilities.

Therefore, we focus on the maintenance of standing posture, which is one of the daily activities. It is well known that mental health status is manifested in posture and its sway, and the sense of body ownership formed by the organs that contribute to the maintenance of standing posture is thought to interact with mental health. We asked young healthy participants to perform postural feedback training in which they stood on a force plate and kept the position of the center of foot pressure displayed on a monitor within the indicated target. As a result, the training group showed a more relaxed state in the heart rate index during the calculation task immediately after the training, and improved values in the questionnaire assessing depression, anxiety, etc. during the 2-week training period. These results indicate that postural feedback training may contribute to the maintenance and improvement of mental health. In the future, we plan to increase the number of participants in the experiment to investigate the mechanism of the effect on mental health, and to propose a simpler training method.

**Keywords:** Postural control, Mental health

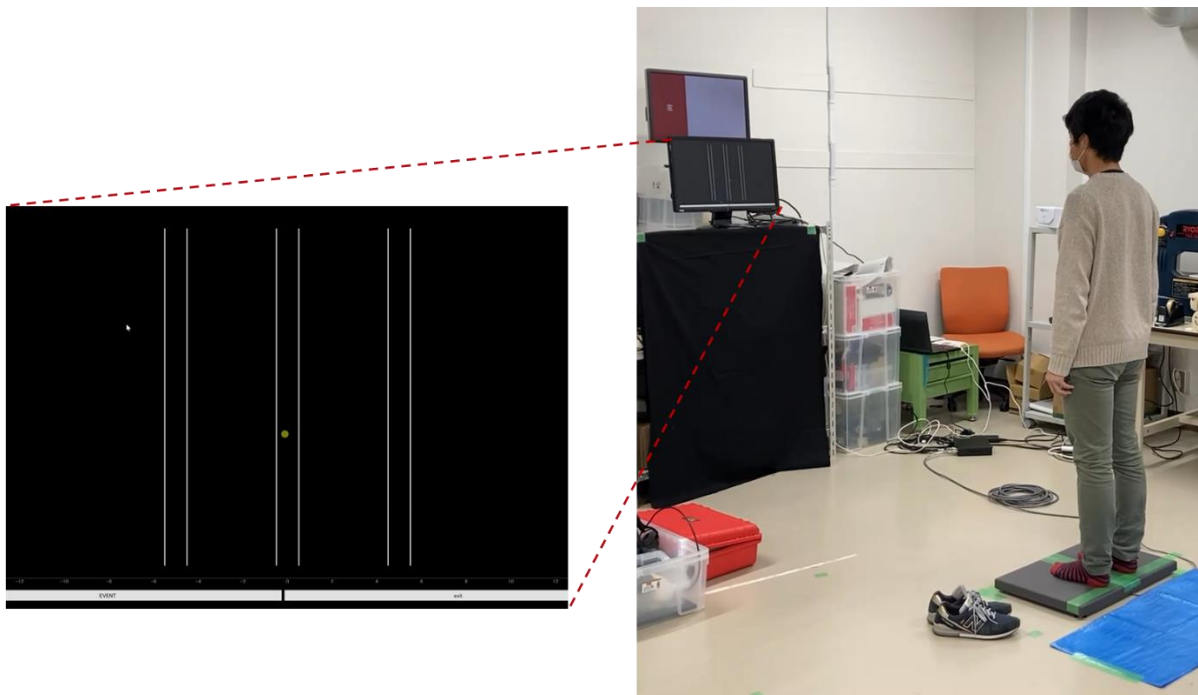


Figure 1. An example of postural feedback training. Three regions and the position of the center of foot pressure are displayed on the monitor, and the participant follows the instructions to keep the position of the center of foot pressure within each region.