



The Effect of External-Focused Attention Using the Prototype Model of SCF Innovation (Speedy Colors Fitting) on Postural Control in Healthy Young Adults

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ABSTRACT

Introduction: Postural control is the ability to control the body's position and is an important fundamental factor for daily living activities, which requires coordination between an object and upper extremity while maintaining the body's position depends on postural control. The prototype model of SCF (Speedy Colors Fitting) innovation was invented to train postural control by stimulating the coordination between eyes and hands for enhancing cognition through using symbols and colors as external stimuli simultaneously with using the random pattern of colors as choice reaction time.

Objective: This study aimed to study the effect of external-focused attention using a prototype model of SCF (Speedy Colors Fitting) innovation on postural control.

Methods: This study is a quasi-experimental design. Ten healthy participants were recruited, and all were trained in postural control by the SCF innovation prototype model. Participants completed static balance in multiple conditions, including a quiet stance with eye closed and eye open. Dynamic balance tests were performed on the functional reach and the timed-up and go test with a wearable movement sensor (APDM). Data were recorded as outcomes; center of pressure (COP) path length, COP velocity, unilateral duration, turn angle, turn duration, and sit-to-stand duration before and after training.

Results: After training with the prototype model of SCF innovation, the COP path length of static balance in each condition did not significantly increase. The dynamic balance decreased with no statistical significance. COP velocity increased in static balance, dynamic balance, and functional reach with no statistically significant difference. Timed-up and go test variables decreased after training with no statistical significance (p -value = 0.092). The functional reach test found that participants could reach further after training (p -value = 0.139). However, there was no statistically significant difference between before and after training.

Conclusion: Providing external-focused attention by prototype model of SCF innovation on postural control in healthy young adults could enhance the ability to control the body's position while in motion or dynamic balance.

Keywords: external-focused attention; postural control; center of pressure