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Opponent:

Title of bachelor thesis:

Balance training in seniors using force platform.

**Abstract:**

This bachelor thesis deals with the issue of balance disorders due to ageing and the usage of the virtual reality in case of these disorders. The aim of this work is to evaluate the effect of home based balance training using the force platform and visual biofeedback. For the objective evaluation the Footscan® system is used. The thesis consists of two parts. Theoretical part summarizes the knowledge related to the balance provision, old age and ageing, involution changes which leads to balance disorders. This part also describes the virtual reality, its usage in rehabilitation and includes several studies of using gaming systems in elderly. In the end of the theoretical part the system which is used in the practical part is described. The practical part describes four weekly home balance training in the form of case reports, charts and graphs. There are analyzing data of seven respondents in the senior age. Results of the work are evaluated and compared with the conclusions of foreign studies.

**Key words:**

Virtual reality, aging, geriatric syndromes, balance, force platform, instability