E-Poster

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Balance-Coordinative Ability of Motoric Skill? A Mixed Methods Approach

Topic: Exercise

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BACKGROUND

The treatment of balance disorders is a crucial component of rehabilitation and prevention in the older population. In the context of athletic performance balance was traditionally considered a subset of coordinative abilities. Abilities are usually innate and refer to general talents and characteristics. In relation to balance, such abilities mean that balance is viewed as a trait. In contrast to the term abilities, skills are learned and related to specific tasks However, recent research indicates that balance is more than just a collection of motor skills. The goal was to examine the factors influencing human balance and assess how well this knowledge is integrated into physiotherapy practice.

METHODS

Between February and March 2024, a systematic literature search was conducted across PubMed, Embase, Cochrane, and SURF databases. Relevant studies focusing on the definition and transferability of human balance were included. The AMSTAR 2 assessment tool was utilized to evaluate study quality. To gather information on balance-related knowledge and its application in practice, an electronic survey was distributed to 10 higher health profession institutions in German speaking region.

RESULTS

Three meta-analyses, involving a total of 1,627 participants, were included. The quality of the included studies was critically low. Improvement in balance tasks was observed only when they were specifically trained as part of an intervention. 78.6% of surveyed health professionals viewed human balance as a collection of skills, while 21.4% considered it a higher-order ability.

CONCLUSION

Research frequently characterizes balance as an accumulation of motor skills with high task-specificity and limited transfer ability. The concept of human balance as a coordinative ability needs significant reconsideration, as it has not been empirically proven. More precise recommendations are needed for the assessment and training of balance in practice.

Statement of Disclosures

None

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