

Abstract

Targets: The aim of the diploma thesis was to create the set of tests on proprioception processing with focus on kinesthesia, stereognosis, body image, vision-excluded space orientation and proprioceptive shape imagination acuity. The tests are supposed to be easy for practical utilization and enabling objective results gaining. In future, they could become a part of adults' dyspraxia testing.

Further we intended to investigate possible relations between particular items of testing battery MABC-2 (Movement Assessment Battery for Children 2nd) and the set of tests on proprioception.

Participants: 35 healthy members took place in testing, 11 boys and 24 girls (13,1-15,7).

Method: Participants first underwent testing according to the testing battery MABC-2 for the age group 11 – 16 years (AB 3) for screening into categories of development coordination disorder. Subsequently the testing of proprioceptive modality was performed, targeted on kinesthesia, stereognosis, body image, vision-excluded space orientation and on proprioceptive imagination of a shape.

Data Analysis: Data analysis has been performed in the statistical environment R-project (version 3.4.0). Following statistic tools have been utilized: the Pearson's correlation coefficient and two-tailed unpaired t-test.

Results: The relation of statistical importance has been proved for the group showing more significant motoric difficulties during testing them for proprioceptive imagination of a shape, comparing to the group with less motoric difficulties Furthermore, we managed to prove the relation between the test of proprioceptive shape image and fine motor skills.

Conclusion: The set of testing tasks with the focus on proprioceptive modalities has been created, to become a part of dyspraxia testing. The proof of statistically significant correlation has been partly achieved, concerning the testing of proprioceptive modalities and chosen standardized tests.

Keywords

Testing of Development Coordination Disorder, proprioception processing testing, kinesthesia, stereognosis, body image, vision-excluded space orientation, proprioceptive imagination of a shape.