PROPRIOCEPTIVE-COORDINATIVE TRAINING FOR PREVENTION OF INSUFFICIENT POSTURE IN FIRST GRADE SCHOOL CHILDREN

Beeger Hagen, Heike Streicher
(University of Leipzig, Germany)

Introduction
Insufficient postures are often being declared as the cause of postural deformities or back-aches (Adolph & Schmidt, 2004). Besides of high prevalence of insufficient postures, latest relevant survey literature report noteworthy coordination insufficiency among children (Bös, 2004). Aim of this study was to verify, if insufficient posture and poor habitual bearing among children could be reduced through proprioceptive-coordinative training (to improve coordination and body perception).

Method
37 first grade school children (n1=19, n2=18) constituted the two groups of this ten weeks lasting quasi experiment in pre-post-test design. One group was being sensitized for a behavior to prevent back-aches (rs-group), the other one was given a proprioceptive-coordinative training in addition (pk-group). To measure the posture we used an ultrasonictopometrical instrument during a test while children stand and keep their arms in front (developed by Matthiass, 1966 [Armvorhalte-Test]), and also sitting and standing in different situations. The focus was primarily put on the curvature of the lumbar spine.

Results
After the short intervention period a statistical significant improvement (p<.05 [t-test]) among the subjects with insufficient posture of the pc-group (n=8) was shown. The improvement of the rs-group was not significant. Because of the small sampling and low effects the result can only be seen as a tendency. Other parameters of posture did not reach level of significance.

Discussion
The shown tendency seems to lead to the conclusion that pc-training is able to improve insufficient postures. The results are the starting-point for following study with bigger sampling and longer intervention period.

Literatur

Keywords: Primary School, Prevention, Proprioception