Doctoral dissertation summary

Author: mgr Jacek Szmalec

Subject: 'The effectiveness of sensory integration therapy in amending motor function and forming school readiness in children aged 5-6'

Dissertation supervisor: prof. ndz. of UMCS dr hab. Aneta Borkowska

Auxiliary supervisor: dr hab. Barbara Kalinowska-Witek

My doctoral dissertation is entitled 'The effectiveness of sensory integration therapy in amending motor function and forming school readiness in children aged 5-6'. It was written under the supervision of prof. ndz. of UMCS dr hab. Aneta Borkowska. Dr hab. Barbara Kalinowska-Witek was the auxiliary supervisor.

The dissertation consists of six chapters, which can be grouped into sections: the theory, the methodology of own research, and the analysis of the results of conducted research and their interpretation.

In the first chapter of the dissertation entitled 'The specificity of child development during the transition period from preschool to early-school age', motor, emotional, social and moral development in the given period were discussed. Typical communication and verbal skills (abilities) of a five- and a six-year-old child were also described.

The second chapter entitled 'School readiness of a child starting education in first grade' includes a description of components of school maturity.

In the next chapter entitled 'Sensory integration in the literature,' I explained the terminology used, including what sensory integration is; and what disturbances appear in sensory integration. A description of the effectiveness of sensory integration therapy in the source literature to date was included therein. I also described adjunctive therapeutic methods for sensory integration therapy, including Shantala massage, the NDT Bobath concept, the Sherborne Developmental Movement method and the Knill's method.

The fourth chapter is entitled 'The methodological basis for own research', and the usage of the correlation model in order to determine the relationship between the level of motor development and the level of school readiness in examinations of two groups of children: the first group which was provided with sensory integration therapy for nine months

and the second group which was not performing therapeutic activities during the same time period were described. I adopted the level of motor development as the independent variable and the level of school readiness as the dependent variable.

In the fifth chapter, entitled 'The effectiveness of sensory integration therapy – outcomes of own research' I presented the results achieved by children from the group exposed to sensory integration therapy in Southern-Californian tests and the skills assessed in a clinical observation questionnaire prior to starting therapy and upon completion in terms of: postural tone, balance, dissociation, locating a visual stimulus, forming school readiness. The outcomes illustrating the relationship between the level of their motor development and the level of school readiness were also presented. For comparison, the results achieved by children from the control group, that is those not exposed to therapy, were also presented appropriately.

The sixth chapter is the 'Discussion'. In this one, it was described whether based on the results obtained, the established hypotheses could be confirmed or not. The results obtained during the conducted research confirm that five- and six-year-old children exposed to sensory integration therapy for nine months improved their performance in comparison to the state prior to therapy, in terms of motor development as well as school readiness, however to a much lesser extent than for motor development. With regard to multiple markers analyzed, the observed improvement was greater than that in the case of children from the control group, in which the change of outcomes for the better was a result of the natural developmental process. Despite the significant increase in the level of performance in multiple trials which were conducted upon completion of the nine-month-long therapy to children from the therapeutic group, these children did not equate to the level achieved by the children from the control group. It is especially visible in markers concerning school readiness. Children from the group that was exposed to therapy still exhibited significantly lower school readiness upon completion of the therapy than typically developing children. Since no relationship between the studied markers of motor function in children post sensory integration therapy and school readiness were found, it can be concluded that therapy has limited effect on forming the latter. Therefore, it seems that therapeutic activities according to the sensory integration concept can be recommended, especially for children for whom the treatment goal is an improvement of motor function. However sensory integration therapy will have no effect on the improvement of school readiness.

Jean Sirk