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# Effects of physical activity on children's behavior Spela Golubovic\*<sup>1</sup>, Tatjana Tubic<sup>2</sup> and Gustav Bala<sup>3</sup>

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# **Background**

This study was conducted to determine whether there is a correlation between organized physical activities and behavioral disorders in children.

## Materials and methods

Sample consisted of 1831 children aged between 4 and 10 who responded to a Likert-type behavior-assessment questionnaire, as well as to a questionnaire on physical activity. Independent variables in this analysis are examinees' gender and age (preschool or elementary school beginner, depending on which institution examinees attended at a time of analysis).

#### Results

Results showed that children of preschool age are less involved in organized physical activities, and also that girls of all ages have a lower participation rate than boys in organized physical activities. Factor-analysis isolated four contributors to aberrant behavior in children: negativity, anxiety, lack of adjustment, and lack of established controls. Relation of these four factors to participation in physical activity was also analyzed. A structure of aberrant behavior points to a strong interconnection between neurobiological and cognitive mechanisms and socio-emotional aspects of behavior in children.

Differences in exhibition of socially incompetent behavioral modules in children included in physical activity, versus those that weren't, are most evident in following traits: stubbornness, unruliness, being spoiled, maudlin, as well as in being aggressive, grabbing toys, throwing

things around and breaking them. Children engaged in physical activities also exhibit differences in behaviors that manifest anxiety.

#### **Conclusions**

The established correlation of factors leading to aberrant behavior and engagement in physical activity point to a prospect that by correctly choosing and directing physical activities, we can prevent behavioral disorders and contribute to children's mental health and well-being.

### References

- Bala G., Hošek A., i Momirovic K.: Aberantno ponašanje i motoricke sposobnosti predškolske dece. Teme 2002, 3:371-382.
- Katz L.G., McCleellan D.E.: Poticanje razvoja decije socijalne kompetencije. Zagreb: Educa; 2005.
- Tremblay R.E., Pihl R.O., Vitaro F., Dobkin P.: Predicting earla onset of male antisocial behavior from preschool behavior. Archives of General Psychiatry 51(9):732-739.