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Differences in Motivation and Physical Self-Concept among Pupils of Early Primary School Age Relative to Their Level of Physical Activity

Extended summary

Good-quality physical education classes, as required by the curriculum, face numerous issues and difficulties on a daily basis. An important prerequisite for physical education to really impact healthy growing up and prepare students for an active lifestyle is their full engagement and activity in physical education lessons. The recommended level of moderate to vigorous physical activity in physical education lessons is 50% to 60% of class time, i.e. of the total duration of the lesson (USDHHS, 2000). Despite these recommendations, in everyday teaching practice, the level of student activity in physical education classes is consistently low (Pavlović et al., 2017; Santos Silva et al., 2019). This study should provide answers to the questions of what happens to motivation and physical self-concept of children of the younger school age after assessing their level of physical activity in physical education classes.

The research included 423 students from the city of Uzice (aged 10±1.3 years), 227 boys and 196 girls, divided into three groups based on the level of physical activity in physical education classes (A-low; B-medium; C-high). A modified Self-Regulation Questionnaire (Ryan & Connell, 1989) was used to assess student motivation, and appropriate subscales of the Self-perception Profile for Children instrument were used to assess physical self-concept (SPPC,

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Harter, 1985); rev. 2012). Student physical activity (scope (number of steps) and intensity) in physical education classes was measured using a CoachGear pedometer and a Suunto Memory Belt heart rate monitor. Groups were determined using the squared Euclidean distance index for both previously mentioned variables with Ward's method of hierarchical cluster analysis. Multivariate analysis of variance (MANOVA) was used to identify gender differences in overall motor status, and individual statistically significant differences were tested with the univariate analysis of variance (ANOVA).

The presented results indicate that there are significant differences between the respondents of both genders in relation to the level of physical activity of the younger school age children. Based on the obtained findings, it can be concluded that the differences are greater in boys than in girls. It can be assumed that the kinesiological components of complex activities in physical education classes were strong enough stimuli for these differences to be greater in them. In regard to motivation in respondents of both genders, motivation and external regulation were not the predictor variables in which differences were observed between the groups of respondents in relation to the level of physical activity of students. When it comes to the physical self-concept, that is, physical appearance, no differences were noticed in boys, and no differences were noticed in girls from the aspect of sports competence. It is interesting to note that differences in four predictor variables were found in both boys and girls. The results presented in this study support most of the findings obtained which indicate differences in motivation and physical self-concept. It was further found that less active children generally showed lower levels of motivation, but also lower levels of physical self-concept. The respondents differed in both external (extrinsic) (introjected and identified) and internal (intrinsic) motivation, in relation to physical activity in physical education classes. It can be said that in real life situations, and thus in physical education classes, models of external and internal motivation rarely appear in isolation from each other, i.e., there are elements of only one model (external or internal) at the basis of physical activities (Antonijević, 2010). Such results of this research may be due to the fact that the respondents were students in the third and fourth grade of primary school, who attend physical education classes out of the need for personal, inherent satisfaction, but also out of the need for an external reward that can be either a grade or praise. Differences in physical self-concept were among respondents of both genders, but in different variables. Numerous studies on this and similar topics indicate that gender differences are usually mostly in favour of boys (Radisavljević-Janjić, 2009; Fernández-Bustos et al., 2019). The differences are reflected in the fact that boys differed in the variable sports competence, and girls in the variable physical appearance. It can be said that engagement in classes, which is reflected in the greater level and intensity of physical activity, gives boys self-confidence, so they see themselves as being at higher levels of sports competence (Jekauc et al., 2017). We should not omit to mention that teaching units were focused on the elements of kinesiology of complex activities, i.e. to activities that require a higher level of motor skills. This is the source of the emphasis on motor skills which distinguished boys in relation to the scope and level of physical activity in physical education classes. Moreover, the social context favours the self-esteem of men in the field of sports, because in accordance with the traditional "masculine role", boys are encouraged to do sports and this is valued highly, they are expected to be stronger, more active, and

then directed towards sports and development of sports competences, which is not the case with girls (Neisen et al., 2007).

The authors believe that when planning and programming physical education classes, emphasis must be put on creating a favourable "climate" for these lessons. Initial preschool and school teacher education must be innovated in accordance with the new requirements and expectations that society puts before physical education in schools.

Keywords: Euclidean index, physical self-concept, cluster analysis, motivational orientation of students, physical education classes.

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