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Participation in sports and sociometric status of adolescents

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Summary

Study aim: To examine the relationships between sport participation and sociometric status of adolescent youths.
Material and methods: A group of 359 secondary school students from central Serbia (143 male and 216 female) aged 16 – 19 years participated in the study. The subjects were given questionnaires pertaining to their participation in sports and sociometric relations, especially "work with" and "interact with".
Results: In total, about 23% of subjects were actively engaged in sports at various levels: local (11%), regional (8%), national (3%) and international (2 subjects), the others were classified as sedentary. The sport-active subjects scored significantly ($p<0.001$) higher sociometric acceptance and sociometric status and lower sociometric rejection ($p<0.05$) than the sedentary ones. However, no significant correlations were found between sport-engagement variables and the sociometric ones.
Conclusions: The presented results can be regarded as preliminary only and call for conducting the study on a larger cohort and to include more psychosocial variables.

Key words: Sport participation – Sociometric status – Adolescents

Introduction

Participation of adolescents in sports is considered as contributing to a better sociometric status and acceptance by schoolmates. It is believed that sport helps to shape character, self-discipline and persistence, reflected in one's sociometric status. Numerous studies point out positive, enhancing effects of physical engagement and positive correlations between intellectual and motor abilities during adolescence [1,13,16,22].

The relationships between extracurricular activities, such as sport participation and perception of sport and social competence, were the objective of many studies [8,18]; it was shown that sport participants had higher self-esteem, perception of sport and social competence and lower scores for anxiety/depression, etc., compared with their sedentary mates. These findings imply that children, who consider themselves successful in sports, are also so perceived by their peers. The importance of social competence among competitive athletes was confirmed by Vučković [19] who found that basketball players of the first league in Serbia and Montenegro, who had better social competence, were more successful as players. Sport activities require co-operation, support, understanding and sportsmanship; it is, therefore, logical to expect a transfer of these values to the social environment of sport participants. Some authors found significant relationships between sport participation, and peer acceptance [9,15,20] and popularity [4,10]. Other authors suggested that sport participation contributed to social inclusion [2,21] and prosocial behaviour [12].

Among many factors which may contribute to the acceptance by schoolmates, athletic competence is probably the most important one, especially for younger children. Many satisfying interpersonal experiences can be gained through sport participation such as the formation of friendships, social affiliation, feeling part of a team and gaining approval from peers, hence it seems natural for young boys to be part of such experience. Specifically, both perception of personal efficacy and motivation are significantly and positively correlated with physical exercise [7]. Carlson *et al*. [3] found that 8 years after graduating from a secondary school, the athletes were more successful in continuing education and finding jobs than their sedentary mates. On the other hand, some authors reported negative effects of sport participation on social competence [11,14], reflected in e.g. higher social exclusion [6]. It ought to be emphasised that these studies considered

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sport participation within school setting, while the objective of the present study is to examine students' participation in sports outside their school setting, and the sociometric status within it, focusing on social aspect of adolescence. The aim of the study was to assess the relationships between sport participation and sociometric status of adolescents at school and to compare those engaged in sports with their sedentary mates with respect to sociometric indices.

Material and Methods

Subjects: All studied subjects (143 male and 216 female), aged 16 – 19 years, attended one secondary school in central Serbia. Among them were 45 boys and 37 girls (23% combined) who declared practicing sports, the remaining 98 boys and 179 girls being classified as sedentary. The criteria of sport engagement, based on the questionnaire (see below), were as follows: practising sports at least twice a week, at least one year of training experience and being listed as competitor in a sport team.

Methodology: The modified sport participation questionnaire of Gašić-Pavišić and Janjetović [14] was used to assess the sport participation variables. The questionnaire contained 5 questions pertaining to sport activities. The following sport engagement variables were recorded: training experience (years), competition level (1 – local, 2 – regional, 3 – national and 4 – international), training volume (training sessions per week).

Sociometric status *via* peer nominations [5] was determined by a questionnaire administered at the end of the school year; it was presumed that the school year lasted long enough to enable establishing interpersonal relationships. The subjects were asked to indicate their classmates whom they "most liked to work with" and "most liked to interact with", as well as those with whom they most disliked to work and to interact. Peer acceptance was defined as the ratio of most liked indications and peer rejection as the ratio of least liked indications to the total of potential indications. From those, sociometric indices were computed [17]: Index of Acceptance: IOA = $\sum$ positive indications / 2(n – 1), Index of Rejection: IOR = $\sum$ negative indications / 2(n – 1) and Index of Sociometric Status: ISS = ($\sum$ positive indications – $\sum$ negative indications) / 2(n – 1).

Student's *t*-test for independent groups and Pearson's coefficients of correlation between sport participation and sociometric status variables were used. The level of $p \leq 0.05$ was considered significant.

Results

The engagement in sports, defined as participation in competitions at various levels, is presented in Fig. 1 and mean values of studied variables in both groups of subjects – in Table 1. The young athletes competed mainly at local and regional levels (85% combined) but two of them competed at international level. Their training experience ranged from 1 to 9 years, the numbers of training sessions per week ranging from 2 to 10.

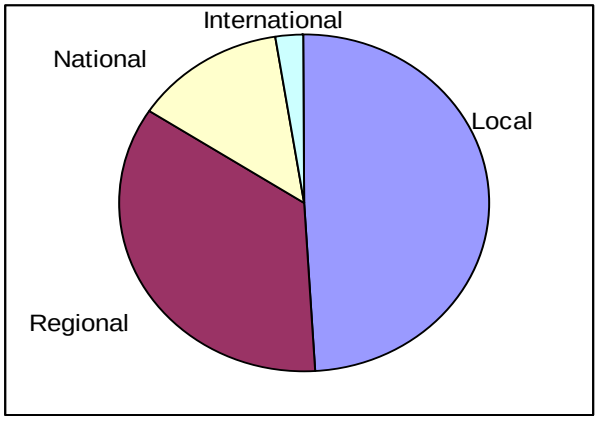

Fig. 1. Percent distribution of subjects engaged in sport competitions at various levels (n = 82)

Table 1. Mean values (± SD) of sport participation and sociometric variables in youths aged 16 – 19 years, engaged or not in sport activities

Group / Variable	Sport-active n = 82	Sedentary n = 277
Training experience	5.62 ± 2.41	–
Competition level	1.70 ± 0.78	–
Training volume	4.00 ± 1.77	–
Index of acceptance	0.15 ± 0.09**	0.12 ± 0.07
Index of rejection	0.07 ± 0.09*	0.10 ± 0.12
ISS	0.08 ± 0.14***	0.01 ± 0.15

Legend: ISS – Index of sociometric status; Significantly different from the sedentary group: * $p<0.05$; ** $p<0.01$; *** $p<0.001$

Subjects from the sport-engaged group attained significantly higher sociometric acceptance ($p<0.01$) and sociometric status ($p<0.001$), and lower ($p<0.05$) sociometric rejection than the sedentary group. However, none of the sport engagement variables correlated significantly with those of sociometric status, correlation coefficients ranging from -0.039 to 0.138.

Discussion

Some reports consistently linked peer acceptance to sport participation [9,15] and showed that children who exhibited athletic competence and high self-perceived athletic abilities tended to be more popular among their peers than the less skilled ones [4,10,18,20]. In this study,

the within-school issues were extended to active participation in sport teams, by assessing the acceptance/rejection of sport-engaged subjects by their schoolmates. The fact that the studied cohort was fairly homogenous with respect to school environment and sociometric status might have been of importance. The obtained results were concordant with the abovementioned reports. However, no significant relationships between sociometric status and sport participation were found. It could be speculated that the higher sociometric status of the sport group was due to the mere engagement in sport activities, the specific sport achievements being of lower importance. Moreover, the fact that the subjects in study attended the same school limited possible generalisations. The measures used in this study ought to be expanded and include the issues of within-school sport participation and a broader range of psychosocial factors. Further studies would thus be needed to consider both within-school and outer factors contributing to the sport issue.

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