

Differences in motivational orientation, exercise activity, self-perceived physical fitness, and self-esteem between participants in different sport events among Finnish 11- to 15-year old students.

J. Meganck¹, T. Lintunen², K. Ojala², R. Välimaa², J. Tynjälä², Y. Vanden Auweele³, L. Kannas²

¹Limburgs Universitair Centrum, Diepenbeek, Belgium; ² University of Jyväskylä, Jyväskylä, Finland; and ³ Catholic University of Leuven, Belgium

Introduction

In the 1960's and 1970's research efforts in the field of sport psychology were focused mainly on defining the differences between athletes and non-athletes, between athletes at different competence levels and between athletes in different sports (Williams, 1985). As the results were often contradictory or inconclusive a sense of dissatisfaction grew stronger to the point where this line of research was all but dropped. In the last decade, two new concepts of research within the field of sport psychology are most noteworthy: goal achievement theory and perceived physical competence. Both concepts have proven their worth in sport psychology, so it seems only logical to see whether they are related differently to athletic groups. Within the field of exercise psychology attention has focused on the importance of life-long physical activity which is influenced by current level of physical activity and the attitude towards physical activity. Physical activity in turn is influenced by experiences, for example, in physical education classes (Lintunen, 1999). The present study attempts to find possible differences in motivational orientation, self-perceived physical fitness, self-esteem, and exercise activity between adolescents in two sets of athletic groups. The first study concerns differences between children participating in individual sports, team sports, or both; the second study looks for differences between children participating in no-contact sports, contact sports, or both. As no clear guidelines could be found in the literature regarding the variables under inspection in either study, the analyses are exploratory.

Methods

The data analyzed in this study is part of a much larger database collected in 1998 as part of the WHO coordinated cross-cultural study on Health Behaviour in School-Aged Children (Currie, Hurrelmann, Settertobulte, Smith, & Todd, 2000). The sampling procedure in Finland was in accordance with the internationally recommended procedure (Tynjälä, 1999) and resulted in a nationally representative sample of 4864 children in the 5th, 7th, and 9th grades in compulsory comprehensive school (mean ages

11y9m, 13y9m, and 15y9m, respectively; 49% male, 51% female). Based on their sport preferences subjects were categorized as participating in individual (974 boys, 2119 girls), team (298 boys, 17 girls) or both sports (268 boys, 116 girls), and as participating in no-contact (1029 boys, 2242 girls), contact (202 boys, 6 girls) or both sports (317 boys, 81 girls).

Three psychological questionnaires were added to the HBSC-questionnaire to elicit further information: the Finnish translation of the Perceptions of Success Questionnaire (Treasure & Roberts, 1994; Liukkonen & Leskinen, 1998) was used to measure motivational orientation; self-perceived physical fitness was measured through the subscale of Lintunen's Perceived Physical Competence Scale (1995); self-esteem was assessed with an adaptation of the Rosenberg's Self-Esteem Questionnaire (Rosenberg, 1965; Lintunen, 1995).

Single-item measures were used to measure current level of exercise activity, enjoyment of physical education classes, and intention to be active at the age of 20.

Data were then analyzed separately for boys and girls, using ANOVA and Scheffe's post-hoc multiple comparisons.

Results

** Study 1: individual versus team versus mixed sport participation*

No differences were found for either gender regarding self-esteem in these three groups. Concerning motivational orientation boys participating in individual sports had lower scores on task orientation than the boys participating in team or mixed sports; no difference was found for boys on ego orientation. Boys participating in individual sports had also lower self-perceived physical fitness, were less active at present and scored lower on enjoyment of PE-classes and intention to be active at the age of 20 in comparison with boys participating in team sports or both individual and team sports. Girls participating in individual sports scored lower than girls participating in both individual and team sports on self-perceived physical fitness, enjoyment of PE-classes, and intention to be active at the age of 20. As for current exercise activity girls in individual sports were less active than their counterparts with a preference for team sports or mixed sports.

** Study 2: no-contact versus contact versus mixed sport participation*

An insufficient number of girls participated in contact sports, so analyses are limited to a comparison of boys participating in these three groups. No differences were found regarding self-esteem or ego orientation. The means for task orientation demonstrated that boys in no-contact sports scored significantly lower in comparison with boys

participating in contact sports or both types of sport. Similarly, boys in no-contact sports had lower scores for self-perceived physical fitness, current exercise activity, enjoyment of PE-classes and intention to be active at the age of 20 when compared with boys participating in contact sports or both types of sport.

Discussion and conclusions

When interpreting these findings in light of the goal of life-long physical activity it is clear that Finnish boys participating in team sports or in both team and individual sports were significantly better off than boys in individual sports: not only were they more active at present and did they enjoy PE more, they also had a better SPPF and were more confident they would still be active at the age of 20. For Finnish girls a similar conclusion can be drawn, limited to the difference between participants in individual sports versus participants in both individual and mixed sports. Indeed, it is noteworthy that only the one difference in activity level is found between girls participating in individual sports versus girls in team sports. The limited number of girls participating in team sports constitutes a partial explanation but further research is warranted to clarify this result. As for the comparisons of boys participating in no-contact or contact sports, the results were similar: Finnish boys in contact sports or participating in both types were better off than their counterparts practicing only individual sports.

The main limitation of this study is that it is not longitudinal in design and that differences between age groups were not studied. As a result it is impossible to discern whether the differences between the groups are the result of the participation in these different types of sports, or whether they actually led children to choose a certain type of sport. It should also be noted that the similarities in the pattern of differences in self-perceived physical fitness, physical activity, enjoyment of PE and exercise intention should not be subscribed to differences in sport participation only. Related research on this dataset (Nederhof, Lintunen, Välimaa, Tynjälä, & Kannas, 2003) suggests that these variables are closely related, indifferent of the type of sport. These limitations, however, are offset by three distinct advantages. Firstly the number of subjects: a nationally representative sample of almost 5000 children allows to generalize these findings to the Finnish children at the same age. Secondly, the number of sports events: whereas most previous research rarely considered 10 sports or more, 73 sports were included in this study. A third and very important advantage is gained by taken into consideration the group of children that participates in both individual and team (or both no-contact and contact) sports. Morgan (1972) already commented on this failure in other studies, and the present results support the importance of this mixed group, especially for girls.

References

- Currie, C., Hurrelmann, K., Settertobulte, W., Smith, R., & Todd, J. (Eds.) (2000). *Health and health behaviour among young people; health behaviour in school aged children: a WHO cross-national study (HBSC) international report*.
- Lintunen, T. (1995). Self-perceptions, fitness, and exercise in early adolescence: a four-year follow-up study. Doctoral dissertation, University of Jyväskylä, Finland.
- Lintunen, T. (1999). Development of self-perceptions during the school years. In Y. Vanden Auweele, F. Bakker, S. Biddle, M. Durand, & R. Seiler (Eds.), *Psychology for physical educators* (chap. 5, pp. 115-134). Champaign, IL: Human Kinetics.
- Liukkonen, J., & Leskinen, E. (1998). *Enjoyment in youth sports: a goal perspective approach*. Jyväskylä, Finland: Likes – Research reports on sport and health 114.
- Morgan, W. (1972). Sport Psychology. In R.N. Singer (Ed.), *Psychomotor domain: movement behaviors* (chap. 8, pp. 193-228). Philadelphia, PA: Lea & Febiger.
- Nederhof, E., Lintunen, T., Välimaa, R., Tynjälä, J., & Kannas, L. (2003). No gender differences in perceived physical competence. *Congress Proceedings of the XIth European Congress of sport psychology, Copenhagen*.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Treasure, D.C., & Roberts, G.C. (1994). Cognitive and affective concomitants of task and ego goal orientation during the middle school years. *Journal of Sport and Exercise Psychology, 16*, 15-28.
- Tynjälä, J. (1999). *Sleep habits, perceived sleep quality and tiredness among adolescents, a health behaviour approach*. Doctoral dissertation, University of Jyväskylä, Finland.
- Williams, L.R.T. (1985). Personality differences in achievement level in sport. *The Australian Journal of Science and Medicine in Sport, 17*(1), 28-30.