

Research article

Do Parents' Exercise Habits Predict 13–18-Year-Old Adolescents' Involvement in Sport?

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Abstract

This study examined links between parents' exercise habits and adolescents' participation in sports activities, considering the aspects of gender and age. It was hypothesized that regular exercise by both parents would be related to children's involvement in sport regardless of their gender and age. Moreover, it was hypothesized that children's sports activities would be more strongly related to their father's exercise activities. The study also examined the links between parents' exercise habits and children's motivation for sports. It was hypothesized that competition motives would be more important for children whose parents exercised regularly. The research sample included 2335 students from the seventh ($n = 857$), ninth ($n = 960$) and eleventh ($n = 518$) grades of various Lithuanian schools. The study used a questionnaire survey method, which revealed the links between parents' exercise habits and their children's participation in sport. Assessment of data for girls and boys showed that daughters' participation in sport could be predicted by both their fathers' and mothers' exercise habits, but sons' sports activities could be predicted only by the regular physical activities of their fathers. The assessment of children's sporting activities according to age revealed links between parental exercising and the engagement of older (15–16 years old), but not younger adolescents (13–14 years old). Analysis of sports motivation showed that competition motives were more important for boys than for girls. Fitness, well-being and appearance motives were more important for older adolescents (15–18 years old), while competition motives were more important for younger adolescents (13–14 years old). Research revealed the relationship between children's sport motives and fathers' exercise habits, while examination of mothers' exercise revealed no difference.

Key words: Physical activity, sports participation, family association, sports motivation.

Introduction

Children's physical activity is closely related to their involvement in sports, that is, their membership of sports clubs or teams. Research has revealed a range of positive effects of sports activities on children's personality development (Jones et al., 2011). Research shows that students' involvement in sports is negatively associated with smoking (Fredericks and Eccles, 2010). More than other types of extra-curricular activities, sport promotes the creation of a network of friends (Ream and Rumberger, 2008), and contributes to better relations with peers (Malinuevo et al., 2010). Students attending sports clubs spend half the time watching television than their non-athletic peers (Malkogeorgos et al., 2010). Young sports participants are personally and socially more responsible than their peers

who participate in any other extra-curricular activities (Carreres-Ponsoda et al., 2012). Although sports activities may be chosen for various reasons (Bailey et al., 2013), the family plays an important role. Studies have revealed positive parental attitudes to adolescents' sports activities (Zilinskienė, 2009). It has also been found that adolescents' approach to sports activities is related to their parents' perspective (Lavoie and Babkes Stellino, 2008). Children's satisfaction with sports activities depends on their parents' support and encouragement (Cote, 1999). Research has also revealed parents' influence on children's motivation for sports (McCarthy and Jones, 2007; Bowker et al., 2009; Sanchez-Miguel et al., 2013) and their choice of sports activities (Dorsch et al., 2009; Yaprak and Unlu, 2010).

Children's engagement in sport changes parents' attitudes towards sports activities, encourages their interest in sports, changes family communications, allows parents to become acquainted with their children's new friends, and may change family leisure activities (Dorsch et al., 2009). On the other hand, there is a lack of studies analysing the links between parents' engagement in sport and children's sports activities (Fredricks and Eccles, 2004; Light and Lemonie, 2010). In addition, the current research lacks data on the association between mothers' and fathers' exercising habits and their children's sports activities according to their gender and age. Analysis of such problematic questions is encouraged by sport scientists (Coakley, 2006; Harrington, 2006; Palomo-Nieto et al., 2011) who emphasize differences in the roles of mothers and fathers in promoting children's sports activities. Fathers more often make decisions about their children's training and competitions (Coakley, 2006). Fathers were perceived as being more involved and more influential in their children's sports participation than mothers (Babkes and Weiss, 1999; Lavoie and Babkes Stellino, 2008). Fathers have historically been perceived as a more significant influence on athletes than mothers have (Greendorfer, 2002). The role of mothers is more strongly associated with sacrificing their own leisure or sports activities to make their children's sports participation enjoyable (Harrington, 2006; Palomo-Nieto et al., 2011). There is evidence that without behavioral role modelling by parents to promote physical activity, adolescents are less likely to engage in sports activities (Sanz-Arazuri et al., 2012). Therefore, our study aimed to examine associations between parents' exercise habits and adolescents' participation in sports activities, with particular interest in the influences of gender and age. We hypothesized that regular exercise of both parents would be related to ado-

lescents' sports activities regardless of gender and age. Individual assessment of the parents' engagement in sports led to a hypothesis that adolescents' sports activities would be more strongly related to their fathers' exercise habits. As mentioned above, research has shown that parents influence children's motivation to exercise, so the study also sought to examine the links between parents' exercise habits and adolescents' sports motivation. We hypothesized that competition motives would be more important for adolescents whose parents exercised regularly.

Methods

Participants

The research sample included 2335 students ranging in age between 13 and 18 years old ($M = 16.2$, $SD = 1.23$). The participants were selected by applying a cluster probability sampling strategy. First, schools were selected from different regions of the country, and then classes were chosen from these selected schools. Permission from school administrators was obtained before the study. Informed consent for participation in the study was obtained from all participants and their parents before the study commenced.

Procedure

The study took place in the years 2009–2010. In this study, 2335 questionnaires were disseminated to students. One visit was made to each school site to conduct anonymous surveys with all students in the classroom. To encourage honesty in reporting, the students were informed that their responses were anonymous and confidential. The students were also informed that they might at any time withdraw from the study. All 2335 students—1240 girls and 1095 boys—returned the questionnaires. Research participants were divided into three groups according to age: 13–14 ($n = 857$), 15–16 ($n = 960$) and 17–18 years ($n = 518$).

Instruments

The study employed a questionnaire survey method. Students' sport participation was assessed by the question "Do you participate in sports?" with three alternative answers: "Yes, I attend training sessions, seek high sports scores and participate in competitions", "Yes, I exercise in my free time to stay in good physical condition, but I do not attend regular sports training sessions and I do not seek high sports scores", and "I only exercise and play sports in physical education lessons". This question measuring participation in sports was validated in early studies with adolescents (Sukys, 2004). Analysis of the data allowed division of the subjects into two groups: 1—those who participate in sports (first response), and 0—those who do not participate in sports (second and third responses). Adolescents participating in sports were also asked what sport they played and how long they had trained in it.

Adolescent motivation for sports participation was measured using statements representing typical motives among young people based on other research (Telama et

al., 2002). This scale was chosen because it was applied in previous research on adolescent sports motivation in various European countries (Telama et al., 2002). On the basis of recommendations for adaptation of research instruments (Jones et al., 2001), several independent translations of the scale were performed. First, two English language professionals translated the statements on the scale into the Lithuanian language. Then those two translations were evaluated by a third English language professional, who recommended corrections, and the scales were corrected accordingly. Then two scientists working in the field of sports psychology evaluated the translated statements. Reverse translation was not performed. Students engaged in sports were shown 16 motives that had to be rated by selecting one of the answer options: "very important", "important", and "unimportant". The internal consistency of the scale was good (with an alpha coefficient of 0.82).

Parents' exercise habits were established on the basis of previously used questions (Telama et al., 2002): "Do your parents exercise (attending a gym or independently)?" In reply to the question, students provided separate responses for their fathers' and mothers' exercise habits by choosing one of three response options: "never", "sometimes", and "regularly". It should be noted that 20 subjects did not indicate their parents' exercising habits. The variable was dichotomized into regular exercising (1) and no exercising at all or exercising sometimes (0).

The questionnaire also contained social demographic items (age and gender of the students, parents' education and employment).

Data analysis

First, descriptive statistics (median and frequency of answers) were calculated. Differences in proportions were assessed with χ^2 tests, comparisons of median differences between the two groups with a Mann–Whitney U test, and between more than two groups with Kruskal–Wallis statistics. Non-parametric statistics were used because of the kinds of data (nominal and ordinal). Moreover, a factor analysis was performed (using the principal components method with varimax rotation) for all motivation for sport participation items. Prevalence odds ratios (OR) and 95% confidence limits (CI) were calculated with logistic regression modelling to estimate associations between parents' exercise habits and children's sports participation. We investigated whether the independent variable (parents' exercise activities) affected the dependent variable (adolescents' sports participation). To examine the extent to which parents' exercise habits predicted adolescents' participation in sport, we evaluated whether such participation was predicted by exercising (vs. not exercising) by (1) both parents, (2) one parent, (3) fathers, or (4) mothers. All the analyses were performed using IBM SPSS Statistics for Windows software (version 19.0; IBM SPSS, Armonk, NY, USA).

Results

The research findings showed that more than one third of the respondents (36.5%) attended sports-training sessions.

Table 1. Links between parental exercise habits and adolescents' involvement in sport.

Parental exercise habits	% of adolescents engaged in sport	OR (95% CI)
Both parents exercise (n = 96) vs. neither parent exercises (n = 1809)	52.1 (n = 50) 34.2 (n = 617)***	1.44 (1.18–1.78)
One parent exercises (n = 410) vs. neither parent exercises (n = 1809)	43.6 (n = 180) 34.2 (n = 617)***	1.21 (1.09–1.36)
Father exercises (n = 270) vs. father does not exercise (n = 1949)	47.4 (n = 123) 34.6 (n = 607)***	1.30 (1.16–1.46)
Mother exercises (n = 140) vs. mother does not exercise (n = 2049)	40.9 (n = 56) 35.7 (n = 740)*	1.13 (0.95–1.35)

OR, odds ratio; CI, confidence interval. * $p < 0.05$, *** $p < 0.001$

Boys attended training sessions more often than did girls (48.2% vs. 26.1%, $\chi^2 = 122.44$, $p < 0.001$). Our data showed a decrease in sports participation among older adolescents (39.8% respectively among those aged 13–14, 37.7% among those aged 15–16, and 28.8% among 17–18 year-old students, $\chi^2 = 17.98$, $p < 0.001$). Typically, students attended sports training sessions for an average of 3.5 (SD = 2.54) years. There was no difference in boys' and girls' sports experience.

Only 4.2% of research participants indicated that both parents exercised regularly, and 17.6% of adolescents indicated that at least one parent exercised regularly (in 65.4% of cases, this parent was the father). Both parents exercising was more often mentioned by 15–16-year-old students (6.3%), less often by 13–14-year-old students (5.1%), and least often by 17–18-year-old respondents (2.6%) ($\chi^2 = 7.78$, $p < 0.05$). Parents with higher levels of education exercised more often than less-educated parents (10.3% vs. 3.4%, respectively, $\chi^2 = 30.99$, $p < 0.001$). Specifically, fathers with higher levels of education exercised more often than less-educated fathers (respectively 22.3 vs. 13.7%, $\chi^2 = 22.28$, $p < 0.001$). An analogous situation was noted in the students' responses about their mothers' exercise habits (14.0% vs. 6.9%, respectively, $\chi^2 = 23.63$, $p < 0.001$). Employed fathers exercised more

often than unemployed fathers (17.8% vs. 9.4%, respectively, $\chi^2 = 10.02$, $p < 0.01$). Similar trends were observed in mothers (10.7% vs. 7.3%, $\chi^2 = 4.47$, $p < 0.05$, respectively, for employed and unemployed mothers).

The study revealed that regular exercise by both parents was related to adolescents' involvement in sport ($\chi^2 = 12.80$, $p < 0.001$) (Table 1). Gender-based comparisons of the links between parents' exercise and sports activities of a son or daughter showed that regular exercise by both parents was linked only to daughters' sports activities ($\chi^2 = 12.76$, $p < 0.001$) (Table 2). In addition, daughters' participation in sport could be predicted by both fathers' ($\chi^2 = 20.87$, $p < 0.001$) and mothers' ($\chi^2 = 4.67$, $p < 0.05$) exercise habits (Table 2). However, sons' sports activities were predicted only by regular exercise by fathers ($\chi^2 = 8.67$, $p < 0.05$).

Research revealed that regular exercise by both parents was linked to sports activities of 15–16-year-old adolescents ($\chi^2 = 3.94$, $p < 0.05$) (Table 3). Moreover, the links between one parents' exercise and sports activities of adolescents of various ages were of interest. It was found that regular exercise by both mothers ($\chi^2 = 4.11$, $p < 0.05$) and fathers ($\chi^2 = 6.53$, $p < 0.01$) predicted participation in sport by students aged 13–14 years old.

Table 2. Links between parental exercise habits and girls' and boys' involvement in sport

Parental exercise habits	Girls		Boys	
	% of adolescents engaged in sport	OR (95% CI)	% of adolescents engaged in sport	OR (95% CI)
Both parents exercise vs. neither parent exercises	45.9 (n = 28) 23.2 (n = 214)***	1.69 (1.30–2.19)	62.9 (n = 22) 46.3 (n = 403)	1.40 (0.99–1.99)
One parent exercises vs. neither parent exercises	35.2 (n = 83) 23.2 (n = 214)***	1.35 (1.16–1.56)	54.8 (n = 97) 46.3 (n = 404)*	.71 (.51–.98)
Father exercises vs. father does not exercise	35.7 (n = 55) 22.7 (n = 207)***	1.37 (1.15–1.65)	59.6 (n = 68) 46.7 (n = 400)*	1.30 (1.09–1.55)
Mother exercises vs. mother does not exercise	33.3 (n = 27) 22.7 (n = 207)*	1.31 (1.02–1.67)	49.2 (n = 29) 46.7 (n = 400)	1.14 (0.81–1.37)

OR, odds ratio; CI, confidence interval. * $p < 0.05$, *** $p < 0.001$ **Table 3.** Links between parental exercise habits and adolescents' of different age involvement in sport

Parental exercise habits	13–14 years old		15–16 years old		17–18 years old	
	% of adolescents engaged in sport	OR (95% CI)	% of adolescents engaged in sport	OR (95% CI)	% of adolescents engaged in sport	OR (95% CI)
Both parents exercise vs. neither parent exercises	52.8 (n = 19) 37.6 (n = 251)	1.34 (.97–1.94)	49.0 (n = 24) 34.9 (n = 254)*	1.33 (1.00–1.78)	63.6 (n = 7) 27.4 (n = 112)	2.16 (1.16–4.03)
One parent exercises vs. neither parent exercises	47.9 (n = 69) 37.6 (n = 251)*	1.23 (1.03–1.48)	46.8 (n = 81) 34.9 (n = 255)**	1.18 (1.01–1.40)	31.3 (n = 30) 27.4 (n = 112)	1.10 (0.87–1.40)
Father exercises vs. father does not exercise	50.0 (n = 47) 38.1 (n = 246)**	1.24 (1.00–1.53)	47.9 (n = 58) 35.7 (n = 252)**	1.31 (1.08–1.59)	38.6 (n = 20) 27.2 (n = 109)*	1.35 (1.02–1.77)
Mother exercises vs. mother does not exercise	50.6 (n = 22) 38.1 (n = 246)*	.62 (.40–.99)	45.5 (n = 22) 35.7 (n = 252)	.70 (.46–1.31)	27.9 (n = 12) 27.2 (n = 109)	1.02 (.72–1.45)

OR, odds ratio; CI, confidence interval. * $p < 0.05$, ** $p < 0.01$

Table 4. Adolescents' motivation for sports.

Motives	Total Median	Gender		Age		
		Girls Median	Boys Median	13–14 years old Median	15–16 years old Median	17–18 years old Median
Fitness and well-being	3.41	3.44	3.39	3.36	3.42	3.47**
Competition	2.71	2.49	2.84***	2.85	2.66	2.50***
Appearance	3.12	3.09	3.14	3.07	3.12	3.22*
Social motivation	2.69	2.72	2.68	2.74	2.68	2.60

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

On the other hand, if only one parent exercised regularly, engagement in sport by those aged 15–16 and 18–17 years was predicted only by their fathers' physical activity ($\chi^2 = 8.76$, $p < 0.01$ and $\chi^2 = 4.58$, $p < 0.05$, respectively). However, only mothers' physical activity was not linked to older children's engagement in sport.

A principal component factor analyses with varimax rotation was performed (the data could be factored because Kaiser Meyer Oldkin = 0.85, Bartlett's test of sphericity yielded $\chi^2 = 3503.03$, $p < 0.001$) on the Motivation for Sport Participation Scale to determine whether the 16 items could fall into factors. The factor analyses revealed a four-factor solution that accounted for 55.29% of the total variance. These factors were named *fitness and well-being motives* (e.g., "It relaxes me", "It is good for me", alpha coefficient = 0.77), *competition motives* (e.g., "I enjoy competitions", alpha coefficient = 0.64), *appearance motives* (e.g., "It makes me physically attractive", alpha coefficient = 0.65) and *social motives* (e.g., "My friends do it", "I meet new friends", alpha coefficient = 0.57). Significant correlations were between fitness and well-being and competition ($r = 0.45$), appearance ($r = 0.56$) and social motives ($r = 0.33$). Competition motives were significantly related with appearance ($r = 0.34$) and social motives ($r = 0.29$). Appearance motives significantly correlated with social motives ($r = 0.26$).

Analysis of adolescents' motivation for sports showed that the most important motives for participation in sports were fitness and well-being, less important were appearance and competition, and least important were social motives (Table 4). Comparing motives by gender established that competition motives were more important for boys than for girls (Mann–Whitney $U = 56242.50$, $p < 0.001$). When the Kruskal–Wallis statistic was calculated to determine whether there was any significant difference between the sports motives of the three age groups, a statistically significant difference was found in such motives as fitness and well-being ($\chi^2 = 8.64$, $p < 0.01$), competition ($\chi^2 = 26.53$, $p < 0.001$) and appearance ($\chi^2 = 6.91$, $p < 0.05$). It should be noted that sports motivation

was related to fitness and well-being, appearance motives were more important for older adolescents, and competition motives were more important for younger ones.

Results showed that when both parents exercised regularly, fitness and well-being motives (Mann–Whitney $U = 11430.50$, $p < 0.01$) were more important to adolescents, and social motives were less important (Mann–Whitney $U = 12412.0$, $p < 0.05$) (Table 5). However, if only one parent exercised regularly, adolescents were more concerned about appearance motives (Mann–Whitney $U = 45690.0$, $p < 0.01$) and there was a tendency for competition motives to be more important ($p = 0.05$). If only the father exercised regularly, adolescents engaged in sports emphasized such motives as fitness (Mann–Whitney $U = 46631.5$, $p < 0.01$), competition ($U = 47109.0$, $p < 0.01$), appearance ($U = 46692.50$, $p < 0.01$) and social motives ($U = 46858.0$, $p < 0.01$).

Discussion

This study aimed to identify associations between parents' exercise habits and adolescents' participation in sports, and to extend previous research by including adolescents' gender and age. Specifically, the first hypothesis was that the exercise habits may be related to adolescents' engagement in sport regardless of their gender or age. According to our data, exercising by both parents predicted children's sports activities, which supports our hypothesis. However, the results from an analysis of gender differences showed that regular exercise by both parents was related only to girls' participation in sports, but it was not related to boys' sports activities.

The assessment of the effects of participants' age revealed links between parental exercise and engagement in sports activities of older adolescents (15–16 years old) but not younger ones (13–14 years old). This may be interpreted in several ways. For younger children, participation in sports is generally one of the most attractive forms of leisure (as confirmed by the highest percentage of athletes at this age). Moreover, the period prior to 12

Table 5. Parental exercise habits and adolescents' motivation for sport.

Parental exercise habits	Fitness and well-being Median	Competition Median	Appearance Median	Social Median
Both parents exercise	3.56	2.68	3.08	2.67
vs. neither parent exercises	3.38**	2.78	3.25	2.87*
One parent exercises	3.47	2.80	3.23	2.71
vs. neither parent exercises	3.38	2.68	3.08**	2.67
Father exercises	3.51	2.85	3.26	2.82
vs. father does not exercise	3.38**	2.68**	3.08**	2.66**
Mother exercises	3.49	2.69	3.19	2.68
vs. mother does not exercise	3.40	2.71	3.11	2.69

* $p < 0.05$, ** $p < 0.01$

years of age is usually the sampling phase of sports development, in which children characteristically try out different sports (Cote et al., 2007). From 13 to 16 years is the period of specialization, when adolescents' attention turns to one or two sports (Bailey et al., 2013). Sports scientists analyzing motivation for sports activities note that it is at these stages, especially the first, when joy and pleasure motives dominate (Bailey et al., 2013) and parental encouragement is least important (Telama et al., 2002). Subsequently, the youngest adolescents could have experienced sports sampling and specialization stages of sport development.

The study dealt separately with the links between one parents' exercise activities and adolescents' engagement in sport. The second hypothesis was that adolescents' engagement in sport would be more strongly linked to exercise by fathers. It should be noted that this assumption was partially confirmed. If only one of the parents in the family was physically active, daughters' participation in sport was linked to exercise by both parents. Meanwhile, boys' engagement in sport related only to exercise by fathers. Furthermore, only fathers' exercise habits remained a predictive factor for adolescents' sports activities in the 15–16- and 17–18-year-old age ranges. Previously, daughters' engagement in sport was linked only to their mothers' physical exercise, and sons' sports activities was related to both parents' physical activity, but more strongly to that of fathers (Eriksson et al., 2008). Consistent with previous studies, our study revealed the role of fathers, which is not surprising because fathers are more often the initiators of children's involvement in sports activities. It was postulated that this could be because fathers, more often than mothers, may be involved in sports to realize unfulfilled dreams or emphasize their masculinity by encouraging their sons to take up sports (Coakley, 2006). However, the role of fathers does not decrease in older children's engagement in sports. This can be explained by the fact that in senior grades, especially in the school leaving grades, students may invest years of training in one sport, seeking high achievement, and they can plan their future careers in sports. At this time, parents are particularly interested in children's sports achievements (Cote, 1999). In addition, children in sports require considerable investment by their families, and it is often fathers that provide the money to participate (Coakley, 2006). Moreover, it is no coincidence that fathers, more often than mothers are, can act as coaches, managers, agents, mentors and advocates for their child athletes (Coakley, 2006). On the other hand, parental pressure on children's access to sports results can reduce their motivation to participate in sport (Light and Lemonie, 2010).

The results revealed that more than one third of adolescents were enrolled in sports training, which confirms the tendencies observed by other scholars (Sukys, 2008; Tomik et al., 2012). Similarly, the established higher percentage of boys in sport is consistent with other research data (Sukys, 2008; Eriksson et al., 2008). The study also revealed that adolescents' participation in sport decreased with age, a finding echoed in other research (Michaud et al., 2006). Therefore, this study investigated

the motivation for adolescents' participation in sports and the relation between this and their parents' exercise activities. Research revealed that adolescents played sports mainly because they liked sports activities, and because they wanted to relax (fitness and well-being motives), which is consistent trends in adolescents' sports motivation established in previous research (Telama et al., 2002). In addition, adolescents' sports motivation differs by gender and age, confirming similar trends established in other countries (Telama et al., 2002). However, in this analysis of the motives for adolescents' participation in sports, the main focus was the association between their sports-participation motives and their parents' everyday exercise habits. Previous studies have found that parental behavior affects children's choice of appropriate sports (Dorsch et al., 2009; Yaprak and Unlu, 2010) as well as their motivation to participate in sport (Bowker et al., 2009; Light and Lemonie, 2010; McCarthy and Jones, 2007; Sanchez-Miguel et al., 2013). It has also been found that the role of coaches and parents influences athletes' motivation differently (Keegan et al., 2010). It was also established that players wanted their parents to be involved in and to support their sports experience (Knight et al., 2010). Our study expands previous studies because we investigated precisely what motives encouraged adolescents to participate in sport, specifically associations with their parents' everyday exercise habits. Some of the results obtained revealed the significant role of fathers in adolescents' sports motivation. That is, if the father of a family exercised regularly, all our investigated motives were more important for his children compared with those in families where the father did not exercise regularly. However, if mothers exercised, adolescents' sports motives did not differ. The study confirmed the hypothesis that competition motives were important considerations for adolescents engaged in sports when their fathers exercised regularly. This confirms the father's role not only in encouraging children to play sports, but also in achieving high performance in sports.

In summary, the study revealed a link between parental exercise and their children's sports participation and motivation. On the other hand, the study also had some limitations. The relatively small number of families with both parents regularly exercising may have affected the analysis of the links between adolescents of various ages playing sports, especially if the younger children were included. In addition, this study relied on children's descriptions of parents' exercise habits. Thus, further research should include parents to reveal both their physical activity and their approach to sports activities as well as their children's participation in sports. It is necessary to pay attention not only to the role of parents in encouraging their children to play sports, but also to the equipment required for sports and exercising at home (Corder et al., 2012). Furthermore, the investigation of children's sports motivation requires evaluation of the influence of other family members engaged in sports, not only the parents, and of the association between the motives of much younger children and older brothers' or sisters' physical activity. Moreover, the motivations of people engaged in sport in various countries (Kondrič et al., 2013) encourage

research involving parents and children from different cultures.

Conclusion

Regular exercise by both parents was linked only to girls' engagement in sport, but was not related to that of boys. Boys' involvement in sport was related to their fathers', but not mothers', exercise habits. The assessment of children's sporting activities according to age revealed links between parental exercise and participation in sport by students aged 15–16, but not those aged 13–14 years. Regular exercise by mothers but not fathers did not predict sports activity among adolescents aged 15–18 years.

Motivation to compete was more important for boys than girls. Fitness, well-being, and appearance motives were more important for adolescents aged 15–18 years, while motivation to compete was more important for those aged 13–14 years. Our research revealed a relationship between exercise by both parents and children's motivation for sport. If only one parent in the family exercised, children's motivations for sports activities were related only to their fathers', but not their mothers', exercise habits. The results of the study support the changing role of parents in sports during the adolescent period of growth and development.

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Key points

- Parental exercising significantly predicts adolescents' engagement in sport. Daughter's engagement in sport is related to both parents whereas son's involvement in sport is related only to father's exercise habits.
- Regular exercising of both mother and father predicts 13 - 14-year-old adolescents' engagement in sport. However, mother exercising is not related to older adolescents' involvement in sport.
- Research revealed the relation of adolescents' sport motives and father's exercising, and no differences were established depending on mother's exercise habits.

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