

## PREFERRED CONTENTS IN PHYSICAL EDUCATION LESSONS – POSITIVELY EVALUATED MEANS FOR THE ACHIEVEMENT OF A HIGHER INTENSITY OF PHYSICAL ACTIVITY BY GIRLS

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**BACKGROUND:** Physical Education (PE) has been one of the key determinants in an education towards a physically active and healthy lifestyle. The role of PE is to form positive attitudes in children towards regular physical activity (PA) and show them the broad scale of types and intensities of PA and ways of teaching them.

**OBJECTIVE:** The aim of this study is to examine relationships and identify determinants in the evaluation of PE lessons differing in content and PA intensity in girls.

**METHODS:** To estimate the relationships between PA intensity in PE lessons and their evaluation, data on 2,213 girls aged 13–17 monitored in 205 PE lessons with different contents (aerobics  $n = 35$ , athletics  $n = 30$ , sport gymnastics  $n = 33$ , sport games  $n = 61$  and dance  $n = 46$ ) between 1997–2003 were used. PA intensity was monitored using the Caltrac (METs/45min.) accelerometer. To evaluate PE lessons, the standardized Assessment of Physical Education Lessons Questionnaire was applied (% of positive answers in the emotional, social, relationships, and health dimensions).

**RESULTS:** In cases of preferred PA activities in girls (dance, aerobics, sport games), a higher PA intensity was reflected positively in the evaluation of PE lessons. In activities not preferred by girls (athletics and sport gymnastics), a higher PA intensity was reflected negatively in PE lesson evaluation.

**CONCLUSIONS:** PE lessons with preferred contents such as dance, aerobics and sport games in girls are appropriate situations in which to carry out PA with a higher intensity. The employment of games or game – like lesson guidance can make PE lessons with less favoured content more attractive.

*Keywords: Aerobics, dance, sports games, gymnastics, athletics, METs.*

### INTRODUCTION

The worldwide decline of physical activity (PA) in children, youth and adults (Haskell et al., 2007; USDHHS, 2000) and an increase in health problems resulting from it, calls for changes that would improve this situation (Cavill, Kahlmeier, & Racioppi, 2006). While searching for suitable intervention programs for increasing PA in adults is rather difficult, in the case of children and youth the situation is simpler. Physical Education at schools is one of the verified and efficient programs that can be used to increase PA and physical fitness in youth (European Commission Sport, 2008; Strong et al., 2005).

The school environment represents an opportunity for implementing PA, nutrition and other lifestyle intervention programmes. As children spend much of their childhood there, healthy lifestyle habits can be instigated and maintained (Biddle, Gorely, & Stensel, 2004; Sharma, 2006). Effective PA in adults needs to last for 20–60 minutes without a break, but health enhancing PA in children can be carried out in shorter, 10 to 15 minute intervals adding up to 60 minutes or

more of moderate to vigorous PA daily (Strong et al., 2005; Wright, Patterson, & Cardinal, 2000). These shorter PA episodes are carried out in Physical Education (PE) lessons and also during recess periods and at lunch breaks (Mota et al., 2005; Verstraete et al., 2006). However, increasing PA in school children is effective only when parents are involved (Biddle, Gorely, & Stensel, 2004; Sharma 2006).

The main goals of elementary education include creating preconditions for active learning over the life-span that also incorporate health enhancement (MŠMT, 2001). There is an emphasis on interweaving “life at school” with “life outside of school”, with the possibility to test the efficacy of curricula. This has been also reflected in the general goal of PE that is the establishment of a positive attitude towards regular, lifelong and voluntary PA in children and youth (Corbin, 2002; Daley, 2002). Results from international research show that the participation of children and youth in organized types of PA positively influences the likelihood of its being performed further in adulthood (Kraut, Melamed, Gofer, & Froom, 2003; Trudeau, Laurencelle, Tremblay, Rajic, & Shephard, 1999). Moreover, for many adolescents, PE

at school is the only source of an intensive type of PA within their weekly PA (Sigmundová, 2005). Also due to these reasons, PE is considered to be an essential means in the support of an active and healthy lifestyle in adolescents and adults (Corbin, 2002; Stone, McKenzie, Welk, & Booth, 1998).

The regular active participation of pupils and students in PE classes is not however automatically guaranteed despite the fact that PE is listed as a compulsory subject. There is an ever increasing number of students who "repeatedly do not exercise" or are excused from participation in these classes although there is an increasing number of fully qualified PE teachers. A study by Sallis et al. (1999) reviewing opinions on PE in pupils and students aged 10–18 regardless of their age, nationality, sex and different family, social and economical backgrounds shows that students expect from PE primarily:

- a feeling of experiencing satisfaction from PA and a friendly atmosphere,
- the possibility of carrying out the PA also in one's free time outside of school,
- a choice of preferred PA that can be done, for example, with parents.

Similar findings have been identified in the Czech Republic by Sigmundová, Frömel, Havlíková and Janěčková (2005). A fondness for PE depends primarily on the lesson content, teaching style and the particular group of students.

The school environment also plays an important role in PA enhancement. In case there is an attractive environment enhancing PA (spacious enough, safe, and well-equipped) with supervision provided, both girls and boys aged 11–14 are significantly more physically active there ( $p < 0.001$ ) in comparison to an environment without the appropriate equipment and without supervision (Sallis et al., 2001).

The relationship between PA intensity and the evaluation of PE lessons has been studied systematically in the Czech Republic primarily in girls (Frömel, Lehnert, & Vašendová, 2000; Pelclová, Frömel, Skalík, & Stratton, 2008; Vašíčková, 2002). However, these studies deal only with cases of aerobics, dance and volleyball PE content. And the classification of the intensity of such PA was done subjectively, according to the perceptions of girls, not objectively by means of accelerometry. Since girls are, in all age categories from 12 to 24, less physically active than boys (Sigmund, Croix, Mikláňková, & Frömel, 2007), we suppose that if PE lessons had content generally preferred by girls, such as aerobics, dance or volleyball, this would have a positive effect.

Innovative changes done in PE lessons have not been accompanied by a decline in the intensity of PA in girls (Frömel, Lehnert, & Vašendová, 2000; Pelclová, Frömel, Skalík, & Stratton, 2008; Vašíčková, 2002). However, a more profound analysis of the relationship between

the intensity of PA and the evaluation of PE lessons with various content resulting in concrete recommendations for teachers are still needed.

## AIM

The main aim of the study is to identify the relationships and determinants affecting the evaluation of PE lessons with different contents as related to the intensity of physical activity in girls.

The long term and repeated monitoring of PE lessons in 1997–2003 using the same standardized methods (Frömel, Novosad, & Svozil, 1999) allowed us to gather data for an extensive sample of girls ( $n = 2,213$ ) aged 13–17. Due to this fact, we can form the following hypotheses regarding the relationship between the evaluation of Physical Education lessons with different contents and PA intensity:

$H_1$ : *In PE lessons with a favoured content, a higher intensity of physical activity will not be reflected negatively in the assessment of the lessons by girls.*

$H_2$ : *In PE lessons with a less favoured content, a higher intensity of physical activity will be reflected negatively in the assessment of the lessons by girls.*

## Commentaries to hypotheses $H_1$ and $H_2$

These hypotheses are based on Mill's rule of one coincidence, which can be, according to Hendl (2005), interpreted as follows: if two or more cases have only a single characteristic in common, then this common characteristic is their cause or consequence. The monitored PE lessons took place in different seasons and on different days of the week, both during morning classes and afternoon classes. Among the teachers were experienced teachers, starting teachers and teacher trainers, both men and women. The number of girls in the classes ranged from 10 to 35. The only common characteristic in the analyzed group of PE lessons was the same content.

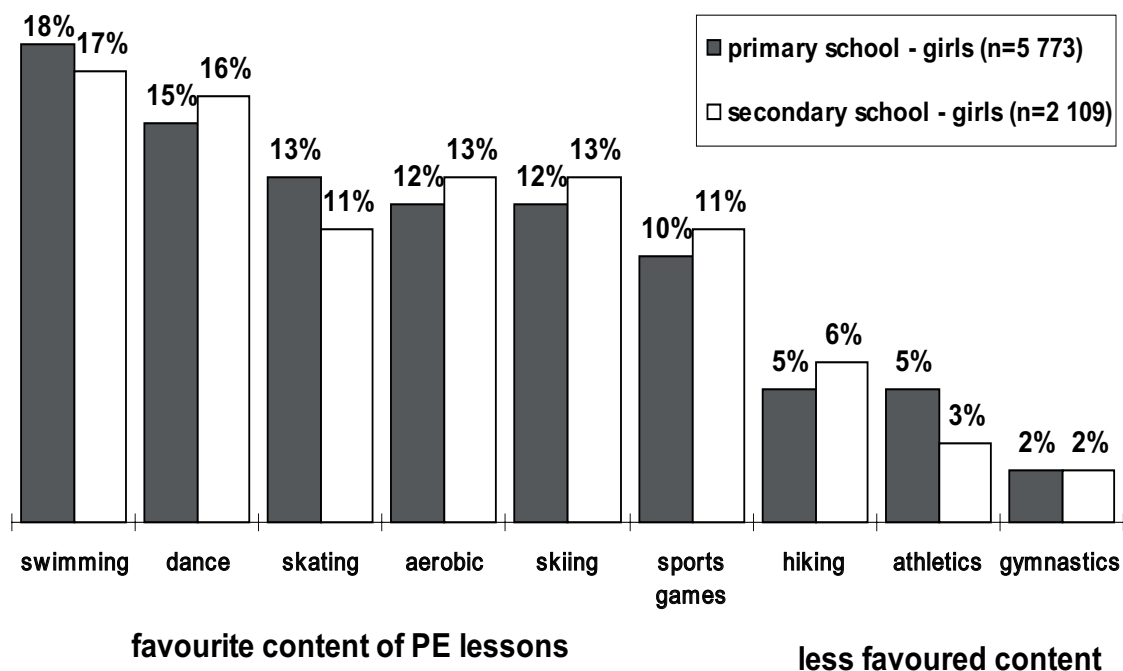
The hypotheses contain three terms: a) the intensity of physical activity, b) the assessment of PE lessons and c) the fondness of a lesson's content which still needs to be studied.

a) *Intensity of physical activity* – the reaction of the organism to physical load in the course of PE lessons. Using the Caltrac accelerometer for monitoring, we quantify this in METs calculated for the 45 minute duration of a PE lesson.

b) *Evaluation of school Physical Education lessons* – closed answers were obtained from the standardized Assessment of Physical Education Lessons Questionnaire, with written and anonymous girls' opinions on the organization, management and the course of the PE lessons. We quantify them using the % of positive answers from the questionnaire in the emotional, social, relational and health dimensions.

**Fig. 1**

Preferences of sports (%) in girls at primary and secondary schools in the Czech Republic



c) *Fondness for the content of Physical Education lessons* – the level of preference of a PE lesson's content. The criterion for differentiating the PE lesson content as being either *favoured* and *less favoured* was a  $\geq 10\%$  preference for individual types of PA in the nationwide survey of PA preferences in girls in the years 1997–2003 (Fig. 1).

## METHODS

### Participants

To assess the associations between the assessment of PE lessons with various content and PA intensity, data from 2213 girls aged 13–17 from three regions of the Czech Republic (Moravian-Silesian, Olomouc, and Zlín) were processed. The monitoring was carried out using the same methods in 1997–2003. In total, 205 PE lessons were monitored; with dance, aerobics, games, athletics, and sport gymnastics (TABLE 1). Girls' participation in the survey was voluntary and no incentives were paid to them. This study was approved by the Ethical Committee at the Faculty of Physical Culture at Palacký University in Olomouc.

### Monitoring of PA in Physical Education lessons

The intensity of PA in PE lessons was monitored using the Caltrac accelerometer and then calculated for individual characteristics (body weight and height, age and sex), and expressed in METs/45min. Each girl

**TABLE 1**

Analyzed Physical Education lessons, their number and the age range of participating girls

Physical Education lessons		Girls	
content	number	number	range of age
Dance*	46	655	13.5–16.8 year
Aerobics	35	488	13.7–16.9 year
Sports games**	61	509	13.2–16.7 year
Athletics	30	210	13.5–16.8 year
Gymnastics	33	351	13.3–16.9 year

Legend:

\* country, Latin, folk and rock & roll

\*\* volleyball, basketball and hadball

had the accelerometer set up according to her individual characteristics. The elastic belts with Caltrac accelerometers were secured tightly in their position on each participant's right hip for the duration of the physical education lesson. The authors of the study were responsible for the measurement of the girls' individual characteristics, the correct set-up of the Caltrac, its correct placement on the participants' body during a PE lesson, and recording the data into the record sheets.

### The evaluation of PE lessons

The evaluation of PE lessons was done using the standardized Assessment of Physical Education Lessons

Questionnaire (Frömel et al., 1996). Immediately after a lesson had been finished, all girls could anonymously evaluate the PE lesson by responding in closed answers (YES/NO) to questions regarding its organization, management, and the course.

The questionnaire consists of 24 questions, divided into six dimensions (emotional, creative, social, education, relational and health) and an additional dimension – the pupil's role. In compliance with the aims of this study, the emotional, social, relational and health dimensions were analyzed as they show the pupil's relationship to the lesson the most. Individual questions in each dimension and positive answers are in TABLE 2.

The verification of the Assessment of the Physical Education Lessons Questionnaire was done in 440 pupils in 27 classes at schools of different types to test their internal consistency using the t-test. Statistically significant differences ( $p > 0.05$ ) in the answers were found in only 5 out of 27 classes and the coefficient of internal consistence had the value of  $r = 0.63$  ( $p < 0.001$ ). When verifying the questionnaire, the relationships between the emotional, social, relational and health dimensions in 114 pupils ranged between  $r = 0.36$ – $0.55$  with  $p < 0.05$ . The coefficient of stability tested in 103 pupils was  $r_{tt} = 0.82$ , and at the level of dimension it was  $r_{tt} = 0.92$ . Lower but still statistically significant ( $p < 0.01$ ) was the coefficient of validity ( $r_{xy} = 0.42$ )

which was interpreted in relationship to the results of the evaluation scale (Frömel et al., 1996).

### Statistical analysis

Specially designed software (Chytil, 2001) was used to process the data from the questionnaires and record sheets. Moreover, the software provides individual feedback regarding the results from the monitoring. In order to present the evaluation in Figures, we used the arithmetic means for the percentage representation of positive answers in each dimension in the questionnaire. The verification of the hypotheses is carried out on the basis of the Kruskal-Wallis and Mann-Whitney non parametric test (Statsoft ČR, 2007). The size of the effect of the variable of *PA intensity* on the variable of the *evaluation of PE lessons* is calculated using the coefficient “effect size”  $\eta^2$  (Kruskal-Wallis nonparametric test) and  $d$  (Mann-Whitney nonparametric test) (Cortina & Nouri, 2000; Morse, 1999). The most common assessment of the  $d$  and  $\eta^2$  coefficients is:

- $d$  - small effect ( $0.2 < d \leq 0.5$ ), medium effect ( $0.5 < d \leq 0.8$ ) and large effect ( $0.8 < d$ ) (Cohen, 1988; Sheskin, 2007).
- $\eta^2$  - small effect ( $0.01 < \eta^2 \leq 0.06$ ), medium effect ( $0.06 < \eta^2 \leq 0.14$ ) and large effect ( $0.14 < \eta^2$ ) (Morse, 1999).

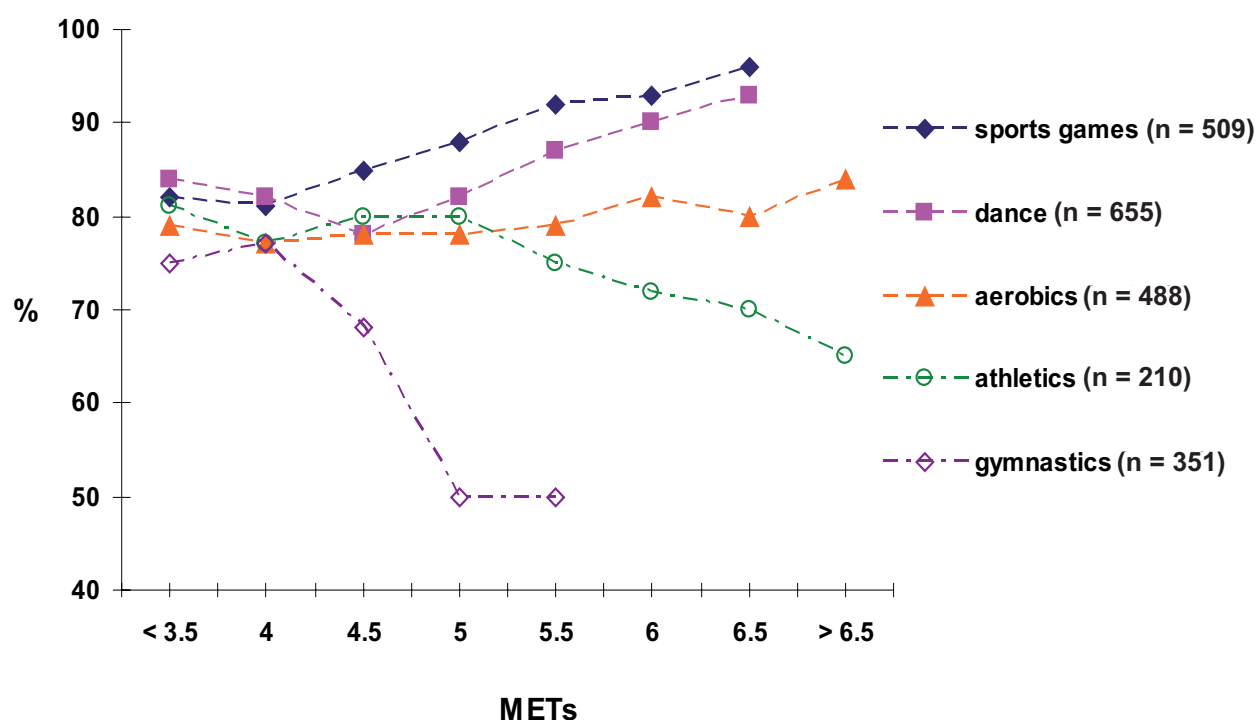
TABLE 2

Questions and positive answers in the four dimensions of the standardized Assessment of Physical Education Lessons Questionnaire

<i>1. EMOTIONAL dimension</i>	<i>Positive answers</i>
• Was the physical activity satisfying?	YES
• Was there a good feeling about the class?	YES
• Was the class fun?	YES
• Where you praised by the teacher or a classmate?	YES
<i>2. SOCIAL dimension</i>	
• Did you see the teacher as an adviser and a friend?	YES
• Did classmates misbehave during the class?	NO
• Did you ask any questions during the class?	YES
• Did you correct any mistakes made by your classmate or did a classmate correct you?	YES
<i>3. RELATIONAL dimension</i>	
• Would you like to have the same or a similar class next time?	YES
• Would an extra curricular activity be better than participating in this class?	NO
• Would you have preferred to attend another class?	NO
• If you had been allowed to leave the class and go home, would you have done so?	NO
<i>4. HEALTH dimension</i>	
• Were you relaxed after the class?	YES
• Was there a good feeling about the class?	YES
• Do you think that the class improved your fitness?	YES
• Do you think about your posture during the lesson? Did you do any stretching?	YES

**Fig. 2**

Evaluation of Physical Education lessons in the emotional dimension of the questionnaire (% of positive answers) according to intensity of physical activity (METs)



## RESULTS

On the basis of the evaluation of PE lessons with various content in the emotional dimension by girls, it is apparent that the evaluation of a PE lesson decreases if there is higher PA intensity in lessons with gymnastics and athletics (Fig. 2). The comparison between the lowest and the highest PA intensity shows that there is a significant decrease in lessons with gymnastics (75% with < 3.5 METs  $\times$  50% with 5.1–5.5 METs;  $p < 0.001$ ;  $d = 1.13$ ) and athletics (81% with < 3.5 METs  $\times$  65% with > 6.5 METs;  $p < 0.01$ ;  $d = 0.78$ ) as PE lesson content. On the other hand, in lessons with sport games and dance, higher PA intensity in PE lessons was accompanied by a higher evaluation in the emotional dimension than in classes with lower PA intensity (Fig. 2). Although a 14% (or 9%) increase in the positive evaluation of PE lessons with games or dance is not statistically significant ( $p = 0.04$ ;  $d = 0.50$  or  $p = 0.06$ ;  $d = 0.39$ ), the values of the coefficient show the small or medium positive effect of PA intensity on the evaluation of PE lessons.

The tendency to evaluate more positively PE lessons with a favoured content (sports games, dance and aerobics) and higher PA intensity (> 5 METs) than PE lessons with a less favoured content (athletics and gymnastics) is also apparent in the social and relational

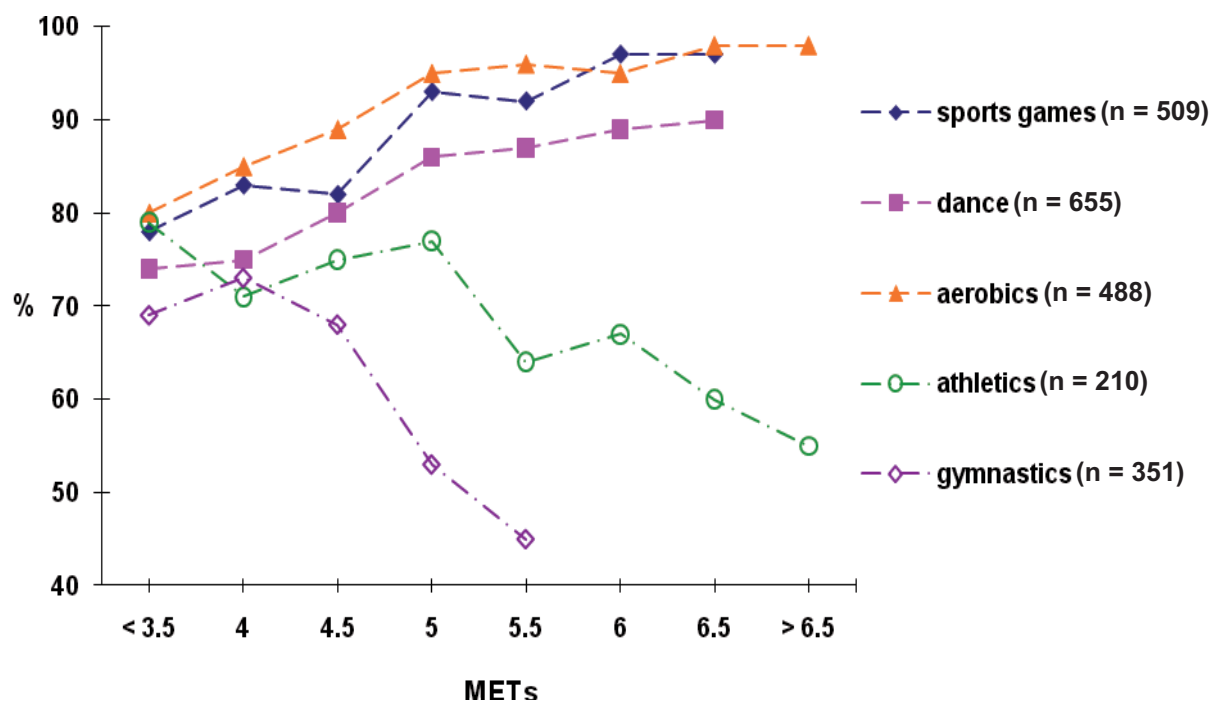
dimensions (Fig. 3 and 4). A significant increase in the evaluation of PE classes with a favoured content in the social and relational dimensions compared to the lowest and the highest PA intensity ranged between 16–19% ( $p < 0.01$ ;  $d = 0.61$ – $1.07$ ). Figures 3 and 4 pointed out the decrease in the positive evaluation of PE lessons with athletics and gymnastics with a higher PA intensity. The comparison of the evaluation of PE lessons with athletics and gymnastics content between the lowest and the highest PA intensity in the social dimension shows a decrease in 16% and 24% ( $p < 0.001$ ;  $d_{\text{athletics}} = 1.07$  and  $d_{\text{gymnastics}} = 1.28$ ) and in the relational dimension in 25% and 30% ( $p < 0.001$ ;  $d_{\text{athletics}} = 1.27$  and  $d_{\text{gymnastics}} = 1.43$ ).

Based on the data from the Assessment of Physical Education Lessons Questionnaire and the analysis of the individual dimensions, the lowest variability in the evaluation of PE lessons with different content in relation to PA intensity was in the health dimension (Fig. 5). Figure 5 shows that higher PA in PE lessons with a favoured content is not negatively reflected in the evaluation in the health dimension. In PE lessons with athletics and with a higher PA intensity, the percentage decrease of the evaluation in the health dimension is not statistically significant. PE lessons with gymnastics and higher PA (5.1–5.5 METs) are evaluated more negatively ( $p < 0.001$ ;  $d = 1.11$ ) than with lower PA intensity (< 3.5 METs).

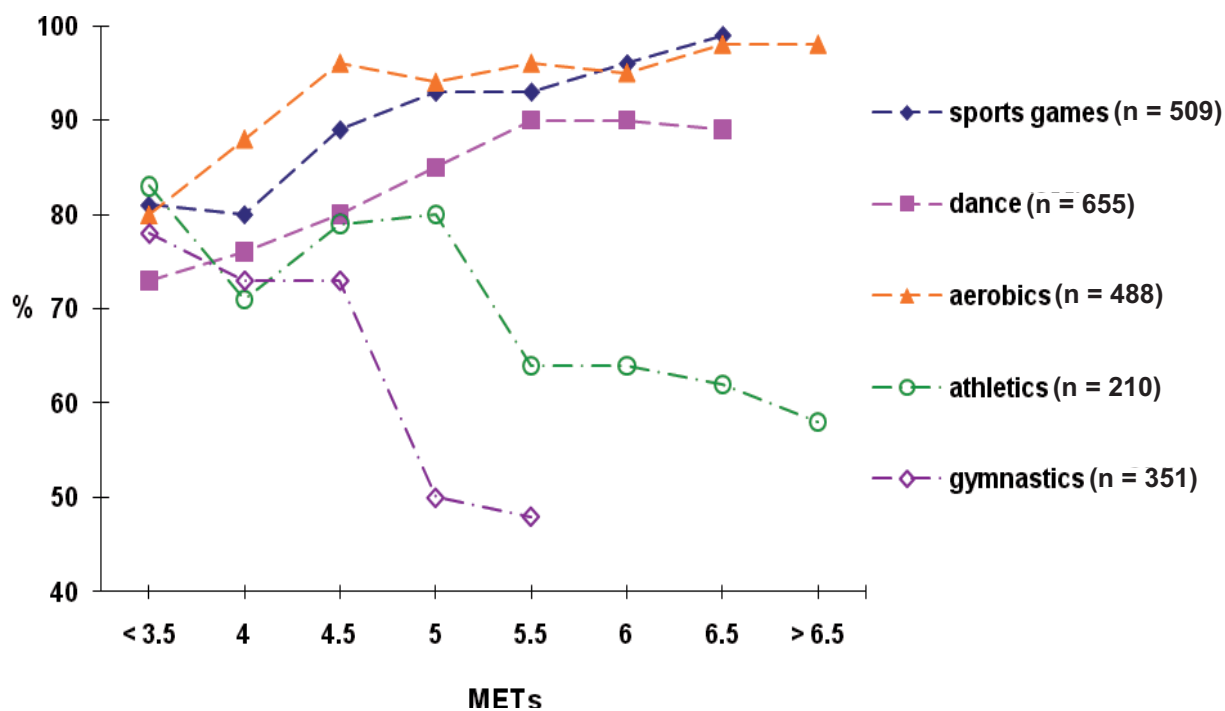


**Fig. 3**

Evaluation of Physical Education lessons in the social dimension of the questionnaire (% of positive answers) according to intensity of physical activity (METs)

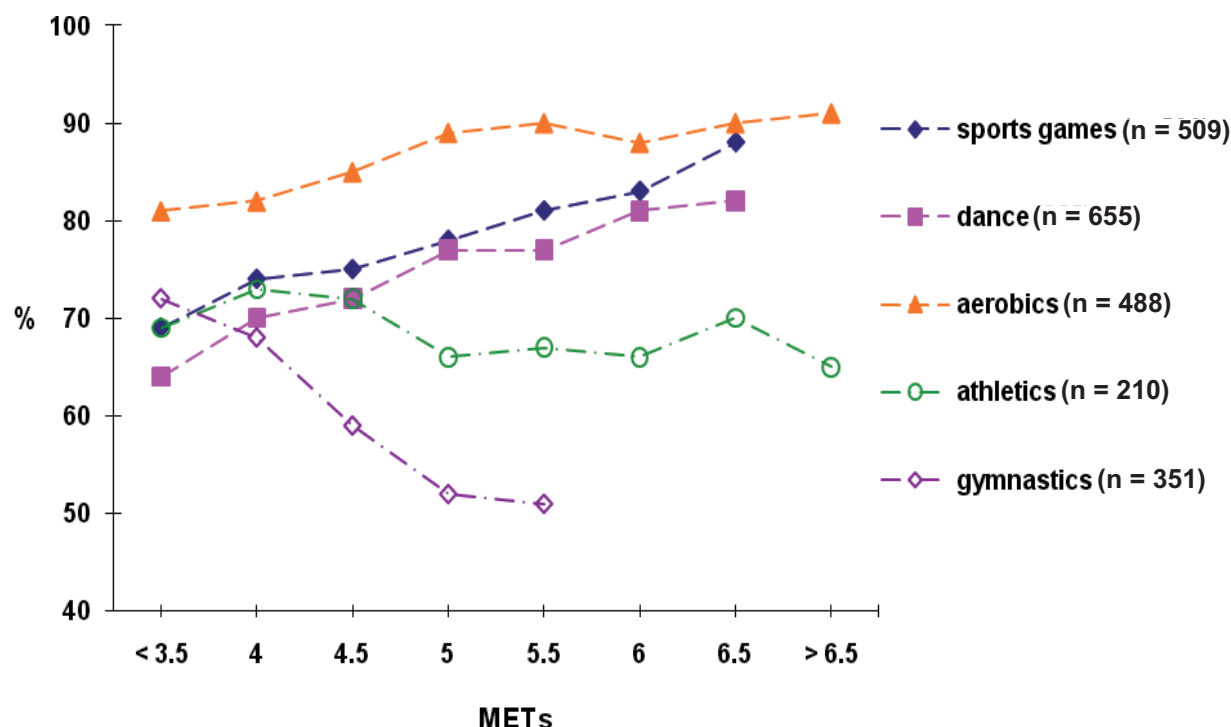
**Fig. 4**

Evaluation of Physical Education lessons in the relational dimension of the questionnaire (% of positive answers) according to intensity of physical activity (METs)



**Fig. 5**

Evaluation of Physical Education lessons in the health dimension of the questionnaire (% of positive answers) according to intensity of physical activity (METs)



## DISCUSSION

The main aim of the study was to identify the relationships and the determinants in the evaluation of physical education lessons with different content in relation to PA intensity. Previous studies describing PA levels in girls in PE lessons as related to the evaluation of the lessons show that higher PA intensity in dance lessons and volleyball lessons was not evaluated negatively by girls (Frömel, Lehnert, & Vašendová, 2000; Pelclová, Frömel, Skalík, & Stratton, 2008; Vašíčková, 2002). However, these studies deal with the discussed relationships only in the cases of aerobic, dance and volleyball PE content. And the classification of the intensity of PA was done subjectively, according to the perceptions of girls, not objectively by accelerometry. Moreover, PE lessons with aerobics and step aerobics with “extreme” PA intensity were evaluated by the girls ( $n = 112$ ) very positively ( $> 79\%$  of positive answers in the emotional dimension,  $92\%$  in the health dimension and  $> 97\%$  in the relational dimension) (Vašendová, Valouch, & Frömel, 2001). The “extreme” physical intensity of aerobics (or step aerobics) was an average PA intensity of 6 METs (or 5.7 METs) measured by a Caltrac accelerometer, the average heart rate was 154 beats/min. (or 166 beats/min.) measured by the Polar Vantage heart rate monitor and 4470 steps/45min. (or 4229 steps/45min.) measured by the Omron HJ-102 pedometer.

Similarly, positive evaluation (around 70% of positive answers, such as in Vašendová, Valouch, & Frömel, 2001) was found in all analyzed groups of PE lessons with lower PA intensity – up to 4.5 METs. We can argue that PE at schools is still among girls’ favourite subjects, but its “conditioning” or “training” types of content are not popular with girls. A wide range of activities offered in PE classes, altering activities with higher and lower PA intensity during a lesson, replacing routine types of activities with games can make the less favoured content of PE more attractive.

Girls prefer activities focused on speed and agility to activities focused on endurance (Frömel, Novosad, & Svozil, 1999). However, the results of our study show that the development of endurance can depend on the fondness for the physical activity. The higher PA intensity in PE lessons with athletics ( $> 6.5$  METs  $\approx$  long distance run, Ainsworth et al., 2000) received, in all dimensions of the questionnaire, a worse assessment than PA with the same intensity, but in PE lessons with aerobics. Therefore, aerobics is suitable for being applied when developing endurance in girls.

A high preference for aerobics, dance and other types of PA with music should not, however, completely replace athletics and gymnastics in PE lessons. The desire to provide a variety of activities in PE lessons needs to be preserved, since PE lessons are the only source of professionally managed physical activities for

many adolescents (Sigmundová, 2005). Due to a wide variety of activities that are not connected with physical activity that present day adolescents can do, it is essential to enhance pupils' attitude and motivation for doing PE and to enhance their responsibility for their own educational results (MŠMT, 2001). Therefore, even less favoured types of PA need to be made accessible to pupils. An example of such an approach in PE lessons with the focus on endurance, where elements of gymnastics and athletics are applied (crawling, climbing wall bars, hurdle drills with, e.g. benches, jumping on a minitrampoline, doing a forward roll). New sport disciplines such as "Parkour" and "Bouldering" employ elements of gymnastics and athletics and they could be applied in PE lessons to some extent. On the basis of our findings we regard our hypotheses below to be correct:

1. *In PE lessons with a favoured content, higher intensity of physical activity is not reflected negatively in the evaluation of the lessons by girls.*
2. *In PE lessons with less favoured content, higher intensity of physical activity is reflected negatively in the evaluation of the lessons by girls.*

#### Limits of the study

There was not more detailed information about the physiological and psychological state (e.g. present physical fitness, mental state) of the monitored participants available; therefore it was not possible to exactly identify the level of PA intensity at which an apparently different evaluation of PE lessons with different content appeared. Further, the management of the lessons with the same content using different teaching methods can lead to different perceptions and evaluations of the lessons (Cothran, Kulinna, & Ward, 2000; Dobrý, 2007). Therefore, another limit of the study is the missing information on the influence of the teaching style, despite the fact that it is to some extent described in the social dimension of the questionnaire.

#### CONCLUSIONS

1. In PE lessons with favoured content, a higher intensity of physical activity was reflected positively by girls in the evaluation of the lessons. Therefore, contents that are favoured by girls, such as dance, aerobics, and sport games, are to be applied if we want to carry out physical activity with a higher intensity.
2. In PE lessons with a less favoured content (athletics and gymnastics), a higher intensity of physical activity is reflected negatively by girls in the evaluation of the lessons. Therefore, classes with such content are not the right ones when we want to increase PA intensity in girls. Making games the main part of a lesson's content or using different teaching

techniques can make PE lessons with a less favoured content more attractive to students.

3. To monitor PA in a larger sample of participants with only a few entry characteristics (e.g., body weight and height, age, sex), accelerometers are better devices to measure PA intensity than pedometers or heart rate monitors.

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# OBLÍBENÁ NÁPLŇ VYUČOVACÍCH JEDNOTEK TĚLESNÉ VÝCHOVY - DÍVKAMI POZITIVNĚ HODNOCENÝ PROSTŘEDEK K DOSAHOVÁNÍ VYŠŠÍ INTENZITY POHYBOVÉ AKTIVITY

(Souhrn anglického textu)

**VÝCHODISKA:** Školní tělesná výchova (TV) je v kontextu výchovy k pohybově aktivnímu a zdravému životnímu stylu jednou z klíčových determinant. Školní TV má dlouhodobě možnost formovat pozitivní postoje dětí k pravidelné pohybové aktivitě (PA) a realizovat ji v pestré škále jejích druhů, intenzit a didaktických forem.

**CÍLE:** Cílem této studie je prezentovat vztahy a formulovat determinanty při hodnocení obsahově různých vyučovacích jednotek TV vzhledem k intenzitě PA děvčat.

**METODIKA:** Ke zjišťování vztahů mezi intenzitou PA ve vyučovacích jednotkách TV a jejich hodnocením byla použita data od 2 213 děvčat ve věku 13–17 let monitorovaných ve 205 obsahově různých vyučovacích jednotkách TV (aerobik  $n = 35$ , atletika  $n = 30$ , sportovní gymnastika  $n = 33$ , sportovní hry  $n = 61$  a tanec  $n = 46$ ) v letech 1997–2003. Intenzita PA byla zjišťována akcelerometrem Caltrac (METs/45min.). K hodnocení vyučovacích jednotek TV byl použit standardizovaný Dotazník k diagnostice vyučovací jednotky TV (% kladných odpovědí v dimenzi emotivní, sociální, vztahové a zdravotní).

**VÝSLEDKY:** U oblíbeného obsahu vyučovacích jednotek TV dívek (tanec, aerobik a sportovní hry) se vyšší intenzita PA projevila pozitivně v jejich hodnocení vyučovacích jednotek. U méně oblíbeného obsahu vyučovacích jednotek TV dívek (atletika a sportovní gymnastika) se vyšší intenzita PA projevuje negativně v jejich hodnocení vyučovacích jednotek.

**ZÁVĚRY:** Vyučovací jednotky TV s oblíbeným obsahem (tanec, aerobik a sportovní hry) jsou pro děvčata vhodnými prostředky pro realizaci PA s vyšším tělesným zatížením. Zařazení pohybových her či herní forma vedení může zatraktivnit vyučovací jednotky TV s méně oblíbeným obsahem.

*Klíčová slova:* aerobik, tanec, sportovní hry, gymnastika, atletika, METs.

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