### THE PREVALENCE OF PHYSICAL ACTIVITY LEVELS IN ALBANIAN CHILDREN AND ADOLESCENTS IN THE PHYSICAL EDUCATION CLASS AND THEIR LEISURE TIME

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**Abstract.** Many studies that show that all individuals (children, adolescents, adults) who participate in regular Physical Activity, namely "every day" their memory, concentration and communication, problem solving and leadership skills will be improved compared with individuals who are inactive. Moreover, these improvements can have a positive impact in their process of learning and many other subject areas. The purpose of this study is to present the prevalence of physical activity in Albanian children's and adolescents during their leisure time and teaching process. The instrument used in this study is "Physical Activity Questionnaire for Children's and Adolescents (PAQ-A and PAQ-C), by Kowalski et al. (1997), made up 8 questions. The sample of the study includes 400 pupils aged 9 - 19 (185 Male and 215 Female). The statistical data processing was performed by SPPS statistical program, version 20. Cronbach's Alpha .820 was used to assess the reliability of the instrument. Volleyball, athletics and football sports are among the most favored by pupils in their leisure time. 56.5% of them claim that they are always intensely involved in the class of PE and 48.3% of them claim that after lesson they prefer to stand around/walk. In extracurricular activities 36% of adolescent's claim that they are not included ever and 30.5% of them state that they are included 1 times at the week and during weekends 52.5% of them are involved 2 - 3 times. The subjects were engaged to get involved in PA at class and during schools day but they are more involved during Saturday and Sunday, during their leisure time.

*Keywords:* pupils, extracurricular activities, leisure time, physical education, physical activity

#### Introduction

Leisure time activities are activities done in periods of time outside of work and essential domestic activities. The strategy is to encourage sport participation or different social groups which engage in physical activity e.g. walking groups, cycling groups, dancing or community gardening.<sup>1)</sup> Being active by participating regularly at Physical activities meaning "every day" is shown to have more positive effects compare to those who does not participate despite age related to participation. These benefits which are mentioned to be more due to memory improvements by increasing capability to be concentrated, improving at problem solving issues even at leadership skills affects also learning process at different learning areas. Physical health benefits of physical activities have been well known but what have been more emphasized these last decades are its effects at mental and emotional health.<sup>1,2)</sup> There are significant evidences showing the association between physical activities included during Physical education and Academic performance even academic attitudes of youths.<sup>2)</sup> Because of these facts are recommended that children must be motivated and encouraged to be part of organized sport during leisure time and physical education class.<sup>2.3</sup>

When youth participate at least 60 minutes per day at every kind of physical activities their benefits must be multiplied and very worthy for their later life.<sup>2)</sup> Even why games and sports are recommended for children and preadolescents, those organized form would be better to be applied because it can optimize not only the benefits but even the safety of the participation.<sup>3)</sup> In contrast to unstructured or free play, participation in organized sports provides a greater opportunity to develop rules specifically designed for health and safety and also participation in organized sports can have physical and social benefits for children.<sup>3)</sup>

Children and adolescents seemed to be attracted from physical activities but in different ways. Children are more likely to participate at free play such as running and jumping while adolescents according to their age – development like more activities such as bicycling, skiing, team sports. Using exercises to develop motor skills does not improve only the ability to perform different kind and complex exercises but it may affect even the cognitive process making learning process easier.<sup>2)</sup>

Recess plays an important role during school time taking children away from the rigors of academic challenges for a while. Recess and particularly unstructured recess (free play) provides multiple benefits due to social, emotional and physical development. From the perspective of children's health and well-being, recess time should be considered a child's personal time and should not be withheld for academic or punitive reasons (Ramstetter et. al., 2010) and being considered as such is, our pupils prefer to stand around/walk around and also they prefer to talk with peers/ reading or doing homework.

#### Methodology

#### **Participants**

The sample of the study includes 400 pupils aged 9 - 19, 185 Male and 215 Female from Elementary School and High School in Tirana. Children aged 9 - 14, 109 Male and 91 Female at "Pjetër Budi", "Sabaudin Gabrani" and "Jeronim De Rada" and Adolescents aged 15 - 19, 76 Male and 124 Female at "Arben Broci", "Petro Nini Luarasi" and "Sinan Tafaj" from High School in Tirana.

#### Instrument

The questionnaire used was "Physical Activity Questionnaire for Children (PAQ-C) and "Physical Activity Questionnaire for Adolescents (PAQ-A) by Kowalski, Crocker, & Kowalski, (1997). The questionnaire was modified by the authors and contains 8 items. Likert scale questions contain five alternatives (1 - No to 5 - 7 times or more and None to Very often) and other alternatives (1 – I don't do PE to 5 - Always ect).

#### Data analysis

The statistical data processing was performed by SPPS statistical program, version 20. Cronbach's Alpha .820 was used to assess the reliability of the instrument. Cronbach's Alpha (for children) .853 and Cronbach's Alpha (for adolescents) .781 was used to assess the reliability of the instrument for each category of ages that identifies high reliability level.

#### Procedures

In completing questionnaire was maintained entirely pupils' anonymity. The administration of questionnaires is carried out by the authors.

#### Discussion

In contrast to unstructured or free play, participation in organized sports provides a greater opportunity to develop rules specifically designed for health and safety and also participation in organized sports can have physical and social benefits for children.<sup>3)</sup> Our teens admit that, as shown in the graph, are more involved in sports courses than in different games, where the sport of Football is the favorite, of course without neglecting the other sports like Volleyball, Basketball etc. (Fig. 1).



Fig. 1. Physical activity at leisure time referring to sports courses (in total)

If we will reflect on the weighing machine of involvement in physical activity will notice that this balance biased by children, then the percentage of non-involvement in physical activity is greater in the age 15-19 years old than among other age. But if you would do the same action with weighing machine about the preference of sports courses, as shown in the graph this scales biased by age 15-19 years old. If we are going to do a parallel between the two age

groups, we can say that both age groups are included in PA, but they prevail in different elements (Fig. 2).



**Fig. 2.** Physical activity at leisure time referring to sports courses (for each group)

Schools face increasing challenges in allocating time for physical education and physical activity during the school day. Overall, increased time in physical education appears to have a positive relationship with academic achievement.<sup>2)</sup> So, our study subjects (children and adolescents) claim that they prefer to involved intensely always Physical Education class (56.5%), very often 20.5% of them and 15% of them prefer to involved sometimes in PE class (Fig. 3).



**Fig. 3.** Involvement intensively in PE classes (games, running, jumping, throwing) in the last 7 days in total (pupils aged 9 – 19)

It was concluded that a high level of physical activity at ages 9 to 18, especially when continuous, significantly predicted a high level of adult physical activity. It's very important to affirm that school-age physical activity appears to influence adult physical activity and through it, the public health of the general population (Telama et. al., 2005). Even in the case of our subjects we look that both age groups are involved intensively in Physical Education, where the results from the graph shows that the percentage between the ages of 9-14 and 15-19 is very low and not important. We may affirm that participation in physical activity at early age that positively affects many aspects of their further growth (Fig. 4).

Recess serves a critical role in school as a necessary break from the rigors of academic challenges. Recess is a complement to, not a replacement for, physical education. Both promote activity and a healthy lifestyle; however, recess particularly unstructured recess and free play provides a unique contribution to a child's creative, social, and emotional development. From the perspective of children's health and well-being, recess time should be considered a child's personal time and should not be withheld for academic or punitive reasons (Ramstetter et. al., 2010) and being considered as such is, our pupils prefer to stand around/walk around (48.3%) and 32% of them prefer to talk with peers/ reading or doing homework (Fig. 5).



**Fig. 4.** Involvement intensively in Physical Education (PE) classes (games, running, jumping, throwing) in the last 7 days for each age group



Fig. 5. Activity at recess time (in the school environment) in total

The data show that both age groups (at a percentage equal to 32%) do not engage in physical activity, but whether we will put out their prevalence then we will see that the situation varies. In this context we see that the age 15-19 physical activity level is greater than the age of 9-14 (52.5%), but at a low level of physical activity measurement. While If we will take into account a higher level of measurement of physical activity will look at is age 9-14 is more involved in physical activity, which are precisely the children who express more willingness and desire to running or playing a lot most of the time (Fig. 6).



Fig. 6. Activity at recess time (in the school environment) for each age group

Besides being fun and a great way to socialize with peers, extracurricular activities can enhance students' time management and stress management skills, improving overall productivity. The data show that involvement in extra-curricular activities of our students is at low levels which 36% of them claim that they never engage in these activities, 30.5% of them state that included 1 times a week and 24.3% of them included 2 - 3 times a week (Fig. 7).



Fig. 7. Involvement in extracurricular activities during the week in total



Fig. 8. Involvement in extracurricular activities during the week for each age group

School-age youth should participate every day in 60 minutes or more of moderate to vigorous physical activity that is enjoyable and developmentally appropriate (Strong et. al., 2005) something that was best illustrated in the our chart and where children are those who prefer to be involved in physical activity. Specifically the data argue that the percentage of non-involvement in physical activity is approximately the same between the two age groups, the difference observed in the involvement of subjects in 1 times a week, where predominate adolescents 42.5%, while the highest level of participation in physical activity observed for age 9-14, children then (Fig. 8).

Being physically active plays an essential role in ensuring health and well-being. Physical activity benefits many parts of the body, the immune system and the nervous system.<sup>1)</sup> Specifically the data argue that the percentage of involvement in physical activity is at high percentage, 52.5% of them are involved in PA 2 - 3 times during weekends and only 37.8% of them are involved 1 time during weekends (Fig. 9).



Fig. 9. Involvement in Physical Activity (PA) during weekends in total

If we refer to involvement in Physical Activity, for each age group will we see that the age 9 - 14 is more involved (2 - 3 times) than age 15 - 19. While in the alternative "Never" we see that it is precisely the age 15 - 19 not included in physical activity, but in the alternative "1 time" prevails this age, which means that the age 15 - 19 included 1 time a week in PA. In conclusion we can say that the age of 15 - 19 is less involved in Physical Activity, while ages 9 - 14 more involved in physical activity, so children prevails (Fig. 10).



Fig. 10. Involvement in Physical Activity (PA) during weekends for each age group

Graph data show that total subjects included 1 - 2 times (37.5%) for the last 7 days, which includes physical movement, such as aerobics, cycling, swimming etc. While 28.3% of subjects included 3 - 4 times, so often and 14.3% of them are involved more often (7 times or more) (Fig. 11).

Referring age groups note that involvement in physical movement 1–2 times is more representative by age 15–19, as alternative equally to 3–4 times and 5–6 times; alternative only 7 times or more is represented by age 9-14. We conclude that at involvement in physical movement such as, swimming, cycling, aerobics, etc. prevails age 15–19, although the difference between these two age groups is small, but the assessment of a prevalence of ages (Fig. 12).

The biggest frequency of involvement in physical activity in our subjects (i.e. the two age groups) is during weekends, namely Saturday and Sunday (Figs. 13, 14).



## Fig. 11. Assertions that better include the involvement of pupils (in total) in physical movement for the last 7 days



**Fig. 12.** Assertions that better include the involvement of pupils (for each age group) in physical movement for the last 7 days

Subjects claim that school obligations (42.5%) and private courses (10.3%) are the reasons for not including them in physical activity, while

39.8% of them reasons claim that it is none of these reasons that prevent them included in PA. The difference between the percentage of any reason and that of school obligations is small, but significant 2.7% namely to say that the reason prevails school obligations, more reasonable for the status they acquire, pupils/student (Fig. 15).



Fig. 13. Frequency of Physical Activity every day last week (in total

Referring school obligations age prevails 15 - 19 (51%) while the proportion of the reason of private courses was almost identical in the two age groups for not including them in physical activity, while age prevails 9 - 14 (49%) that it is none of these reasons that prevent them included in PA and for the health reasons age prevail 15 - 19 (Fig. 16).

#### Conclusion

Because of the many benefits for health of physical activity, recent analysis has suggested that reaching the recommended minimum level of physical activity compared with no activity was found to lead to a reduction in all cause mortality of 19% and this rises to 24% if an hour a day is spent in physical activity.<sup>1)</sup> Study has shown that teens prefer to be involved more in sports courses than in different games and that Football is their favorite, of course without neglecting the other sports like Volleyball, Basketball. Comparing two age groups 9 - 14 and 15 - 19 there wasn't any difference due to their participation at PA, but they prevail in different elements claiming that they prefer to be involved intensely always in Physical Education class (56.5%). Even why they was almost equally at the readiness to participate at P.A the data shown that the level of physical activity was greater at 15 - 19 years old than at the 9 - 14 years old. Must be emphasized that despite of this children expressed more willingness and desire to running or playing a lot most of the time. The involvement in extra-curricular activities of our students is at low levels, they claim that they are never engage in these activities because of not enough time.



Fig. 14. Frequency of Physical Activity every day last week (for each group)



# Fig. 15. The reason that has prevented the pupils (in total) to be involved in Physical Activity (PA) last week



**Fig. 16.** The reason that has prevented the pupils (for each age group) to be involved in Physical Activity (PA) last week

In conclusion we can say that the age of 15 - 19 is less involved in Physical Activity, while ages 9 - 14 more involved in physical activity, so children prevails.

#### NOTES

- 1. http://www.c3health.org/
- 2. <u>http://www.cdc.gov/HealthyYouth/</u>
- 3. <u>http://pediatrics.aappublications.org/content/pediatrics/107/6/1459.full.pdf</u>

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