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LEVEL OF INVOLVEMENT OF PRESCHOOL CHILDREN IN PHYSICAL EDUCATION AND SPORT – PILOT RESEARCH PROJECT "EXERCISE RIGHT, STAY HEALTHY" [1]

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Abstract: Preschool age is essential for the development of motor skills and the formation of healthy habits. The World Health Organization cautions of the risks of hypokinesia (insufficient physical activity), which can lead to obesity, hypertension, and metabolic diseases. Preschool institutions play an important role in promoting physical activity through organized programs. Research shows that specially designed physical exercise programs improve children's motor abilities, indicating the need for a systemic approach to engaging children in sporting and recreational activities. The project "Exercise Right, Stay Healthy" by the Association for Preschool Sport and Physical Education of Serbia represents one such effort. The subject of this research is parents' perception of the involvement of preschool children in physical education and sport. Accordingly, the main objective of this study is to assess parents' views on their children's participation in physical education and sport. The research was conducted on a sample of 121 parents of children from five Belgrade municipalities (Palilula, Savski Venac, Novi Beograd, Stari Grad, and Voždovac). The results showed that 51.24% of children exercise 1-2 times per week, while 36.36% exercise 3-4 times per week. No statistically significant difference in exercise frequency was observed between boys and girls. Most children possess basic motor skills, such as riding a scooter (76.86%) and a bicycle (39.67%), while activities like swimming (48.76%) and skateboarding (8.26%) are less common. Parents expressed high interest in regularly organized physical exercise in kindergartens, with 95% positive responses. The study emphasized the need for a systemic approach to addressing insufficient physical activity among preschool children.

Keywords: *physical education, physical exercise, preschool children, parents*

INTRODUCTION

Preschool institutions, as the first link in the long chain of the educational system, should provide organized learning of motor skills under the supervision of qualified professionals. Preschool age represents a critical developmental period for establishing the foundations of a child's health and fostering a positive attitude toward physical activity. Therefore, special attention must be dedicated to this aspect. Regular monitoring of motor abilities and skills, as well as timely assessment of children in this age group, is essential for developing and applying early intervention methods. These methods will support the child's positive psychomotor development, prevent potential future developmental issues, and promote optimal growth for every child (Lobo & Galloway, 2013).

The World Health Organization (WHO) has declared hypokinesia—insufficient physical activity—along with hypertension and obesity, as an independent risk factor.

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Insufficient movement and lack of sporting and recreational activities create numerous health issues, that mostly affect the respiratory, cardiovascular, and musculoskeletal systems, as well as metabolic disorders and socio-psychological illnesses (WHO, 2020). Early and varied movement experiences, proper instruction, adequate space, and positive attitudes from parents and caregivers enable optimal motor development in children (Đorđić & Bala, 2006). Given that early childhood is a crucial period for forming healthy habits, integrating physical activity into children's daily routines will help maintain these habits in later stages of life, potentially lasting a lifetime (Tucker, 2008).

Based on research, many authors have found that specially designed physical exercise programs for preschool children lead to better results in motor skill testing (Vukmirović & Hadžiselimović, 1994; De Privitellio et al., 2007; Bala, 2004; Pelemiš, 2016; Breg, 2019). Given these findings, it is clear that the state and society as a whole must seriously engage in addressing this issue by systematically and strategically involving as many children as possible in sports and recreational programs, motivating them, and ensuring sport is more accessible to every child to preserve the nation's health (Vještica, 2012). Additionally, hypokinesia is increasingly prevalent among preschool children (Užičanin et al., 2023).

The subject of our research is: Parents' perception of preschool children's involvement in physical education and sport.

Research problem: The research problem concerns the assessment of preschool children's involvement in physical education and sport.

In line with the research problem and subject, the main objective of this study is to determine parents' assessment of preschool children's involvement in physical education and sport.

To achieve the stated research objective, the following research tasks have to be carried out:

- Developing a special questionnaire for parents to assess preschool children's involvement in physical education and sport.
- Conducting a survey on parents' perception of preschool children's involvement in physical education and sport.
- Interpreting the obtained results and drawing adequate conclusions.

Based on the defined problem and subject, as well as the research objectives and tasks, we can formulate the following general hypothesis: H1 - Parents believe that preschool children are highly engaged in physical education and sports.

The "Exercise Right, Stay Healthy" project by the Association for Preschool Sport and Physical Education of Serbia represents one of the efforts made in this direction. The current research presents part of the results related to assessing preschool children's involvement in physical education and sport.

METHOD

Sample and research procedure

The research was conducted on a population of parents of preschool children from five municipalities in the city of Belgrade, using a sample of 121 respondents—parents whose children attend public preschool institutions in the territory of five Belgrade municipalities: Palilula, Savski Venac, Novi Beograd, Stari Grad, and Voždovac. Among the survey respondents, 59 are parents to male children, and 62 are parents to female children. The measurement instrument in the study was a questionnaire specifically designed for this research, consisting of 22 questions, mostly closed-ended, with 20 questions analysed for the purposes of this study. The surveys were conducted by trainers from the Association for Preschool Sport and Physical Education of Serbia in Belgrade as part of their regular work duties during the implementation of the project "Exercise Right, Stay Healthy." The research covered five groups of variables: The first group of independent variables relates to the socio-demographic characteristics of the respondents (gender, age). The second group consists of independent variables examining leisure time and, within it, how much children engage in physical exercise - sport - and the child's social life. The third group of variables includes independent variables related to sports and recreation equipment and the child's health status. The fourth

group of independent variables pertains to sports that the child can independently practice—exercise. The fifth group of independent variables relates to data on physical education and exercise in preschool institutions.

Data processing

Data were collected from 121 surveyed parents. For data processing, descriptive and comparative statistical procedures were used. Using descriptive statistical procedures, we calculated percentages and frequency distributions, while comparative statistical procedures were applied to analyse certain socio-demographic elements—gender, and the $\chi 2$ test was used.

RESULTS

The results of descriptive statistical procedures for the sample examined (percentages and frequency distribution) are presented in Table 1.

Table 1. *Descriptive parameters of the analysed sample by age*

Age	4	5	6	7
Boys	3	23	22	11
	5,08%	38,98%	37,29%	18,64%
Girls	3	13	22	24
	4,84%	20,97%	35,48%	38,71%
Total	6	36	44	35
	4,96%	29,75%	36,36%	28,93%

Most respondents were parents of 6-year-old children, accounting for 36.36% of the total number of respondents, while the smallest percentage of respondents were parents of 4-year-olds at 4.96%. The proportion of parents of children aged 5 and 7 were approximately equal, at 29.75% and 28.93%, respectively.

To better understand the available free time of children, parents were asked how much free time their children have daily. The results are shown in Figure 1.

Figure 1. *Children's daily free time*

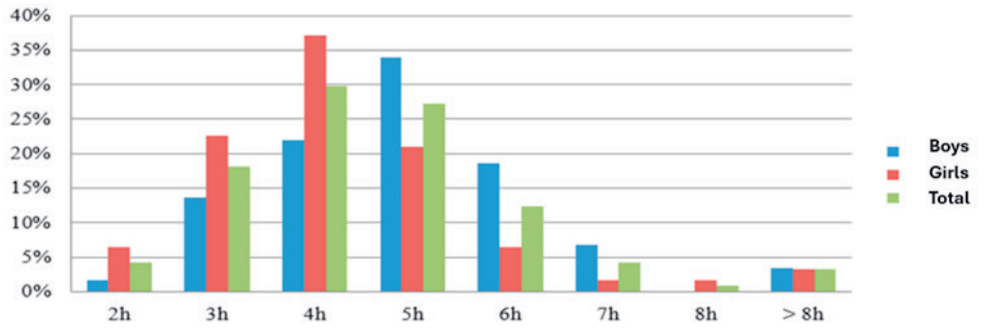


Figure 1 clearly shows that preschoolers in this age group have about 4 to 5 hours of free time daily, which aligns with previous research (Burdette & Whitaker, 2005; Ginsburg, 2007). Since preschool children also have sufficient time during their stay in kindergarten to engage in regular physical activity, we believe this represents a significant time frame in which systematic and consistent interventions should be implemented. The current situation involves ad hoc solutions from private initiatives without quality control—both in terms of program content and professional oversight when working with our youngest population.

In the further presentation of results (Table 2), it is evident how parents responded to the question: “How often does your child engage in organized physical exercise/sport?” More than half (51.24%) answered that their children exercise 1-2 times per week, while 36.36% stated that they engage in sports 3-4 times per week. This result confirms that the "Exercise Right, Wake Up Healthy" project has successfully raised parental awareness about the importance of regular physical exercise for their children's healthy growth and development.

Table 2. *Frequency distribution of responses to the question “How often does your child engage in organized physical exercise/sport?” with gender differences highlighted*

Frequency of exercise	Never	Sometimes during the month	1-2 times a week	3-4 times a week
Boys	5	6	27	21
	8,48%	10,17%	45,76%	35,59%
Girls	0	4	35	23
	0,00%	6,45%	56,45%	37,10%
Total	5	10	62	44
	4,13%	8,27%	51,24%	36,36%
		df=3 χ^2=6,45 p>0.05		

The χ^2 test values ($p>0.05$) indicate that there are no statistically significant differences between boys and girls in the frequency of activity.

Particularly interesting indicators are the obtained results for the question: "Can your child independently swim, ski, ride a bicycle, rollerblade, ice skate, ride a scooter, or skateboard?" which are presented in Table 3.

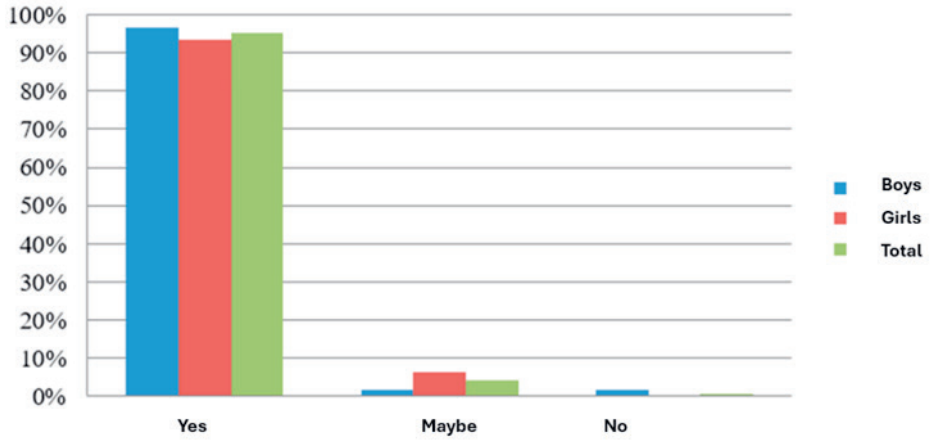
Table 3. *Frequency distribution of responses to the question "Can your child independently swim, ski, ride a bicycle, rollerblade, ice skate, ride a scooter, or skateboard?" with gender differences highlighted*

Skill	Swimming	Skiing	Riding a bicycle	Rollerblading	Ice skating	Riding a scooter	Skateboarding
Boys	27	8	28	17	7	43	8
	45,76%	13,56%	47,46%	28,81%	11,86%	72,88%	13,56%
Girls	32	19	20	29	23	50	2
	51,61%	30,65%	32,26%	46,77%	37,10%	80,65%	3,23%
Total	59	27	48	46	30	93	10
	48,76%	22,31%	39,67%	38,02%	24,79%	76,86%	8,26%
				df=6 χ^2=17,91 p<0.05			

Based on the results from Table 3, we see that 48.76% of children can swim, 22.31% can ski, 39.67% can ride a bicycle, 38.02% can rollerblade, 24.79% can ice skate, 76.86% can ride a scooter, and 8.26% can skateboard. Most of the children know how to ride a scooter (76.86%), which is expected since children usually come into contact with scooters first, as they are easier and safer to master. It is also understandable that the fewest children engage in skateboarding, as it is much more challenging to learn. Interestingly, girls were more successful in 5 out of the 7 listed activities (χ^2=17.91; $p<0.05$).

Finally, the key research question was: "Are you interested in regularly organized physical exercise in your kindergarten?" The results shown in Figure 2 clearly indicate that 95% of parents want their children to engage in regularly organized physical exercise in kindergarten.

Figure 2. *Response to the question "Are you interested in regularly organized physical exercise in your kindergarten?"*



The answer to the previous question is yet another confirmation of the crucial need for systematic organization of structured physical exercise. In this regard, the Association for Preschool Sport and Physical Education of Serbia has the capacity to tackle such a complex issue, as demonstrated by the successful implementation of the project "Exercise Right, Stay Healthy".

DISCUSSION

Preschool age represents a period when various movement experiences, adequate space, and a positive relationship with parents, educators, and coaches are essential to ensure optimal motor development in children. Scientific research has repeatedly confirmed these facts (Gallahue & Ozmun, 2012; Haywood & Getchell, 2019; Payne & Isaacs, 2020), and this study makes a small contribution to the investigation of motor behaviour in preschool children, specifically assessing their level of engagement in physical education and sports. For this purpose, a survey was conducted with 121 parents of boys and girls participating in the "Exercise Right, Stay Healthy" project from preschool institutions across five municipalities in Belgrade.

Based on the results obtained, it can be concluded that the children involved in the project are sufficiently engaged in physical education and sports (51.24% exercise 1-2 times per week, and 36.36% exercise 3-4 times per week). Therefore, it can be stated that Hypothesis H1—Parents believe that preschool children are highly engaged in physical education and sport—is completely confirmed. A comparative analysis (χ^2=6.45; p>0.05) determined that there is no statistically significant difference between boys and girls who participate in regular physical education and sport. The survey results showed that a fairly equal number of girls and boys exercise regularly 1-2 times per week, with similar results for the frequency of exercising 3-4 times per week, clearly indicating that children of both genders have an equal interest in organized exercise activities as practiced in the "Exercise Right, Stay Healthy" project.

The need for additional physical engagement among children is supported by the responses to the question: "Do you believe your child gets enough physical exercise through the regular preschool curriculum?" Only 30% of parents answered affirmatively, suggesting that standard preschool programs do not sufficiently address physical education. These findings align with previous research that has well-documented the lack of physical activity among preschool children (Tandon et al., 2011; Copeland et al., 2012; Hesketh et al., 2017). Interestingly, parents of girls were more dissatisfied with the amount of physical exercise in preschools, with 72.58% answering no or partially, compared to 67.25% of parents of boys giving similar responses.

CONCLUSION

The results of the research conducted to assess the involvement of preschool children in physical education and sport as part of the "Exercise Right, Stay Healthy" project in preschool institutions across five Belgrade municipalities show that the children covered by the project are sufficiently engaged in physical education and sports. However, this very observation also highlights a limitation of the study—namely, the fact that the cause may be the very small number of parents included in the research.

The obtained results can serve as valuable guidelines for future researchers, whose primary recommendation should be to conduct the same study on a larger sample of participants and across a broader geographical area. This would contribute to the potential generalization of the results and aid in decision-making regarding actions to be taken to ensure systematic work with all preschool-aged children.

A systemic solution to the problem, in our opinion—as well as in the opinion of many authors with decades of experience working with preschool-aged children—would involve the coordinated efforts of all relevant factors in the process of organized care for preschool children, ranging from state and city structures to sports associations and parents.

Specific proposals that would certainly lead to solving the problem and increasing the involvement of preschool-aged children in physical education and sport include:

- Introduction of physical education classes in preschool institutions, to be conducted by qualified physical education teachers.
- Increased media activity through marketing and promotion to highlight the importance of healthy lifestyles, particularly among parents and preschool-aged children.
- Increased interest and additional training for educators to implement structured and regular physical exercise and physical education programs for preschool-aged children.
- Enhancing the material and technical resources of kindergartens with equipment and supplies for the implementation of structured and regular physical exercise and physical education programs.
- Providing free programs for preschool-aged children, as the cost of sports schools and other programs for preschoolers ranges from RSD3,000 to RSD6,000, making it unaffordable for many parents to provide such opportunities for their children.

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