

Motor performance of Roma pupils in the first grade of primary schools in Slovakia

Sprawność fizyczna uczniów romskich pierwszych klas szkół podstawowych na Słowacji

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Abstract

The aim of research was to Roma pupils in the first grade of primary schools ascertain the essential characteristics somatometric and their level of physical performance. The research was done at the end of the school year 2013/2014. The sample included from 188 students aged 7th to 10th years in primary schools in the districts of Rimavská Sobota and Rožňava. Physically we investigated the performance test battery EUROFIT. Our research group was compared with a nationwide non-Roma pupils by Moravec et al. [11]. Test battery EUROFIT: flamingo balance test, plate tapping, hand dynamometer, sit-ups 30 s, standing broad jump, bent arm hang, shuttle run 10 × 5 meters, shuttle endurance run. When comparing the performance of our group of Roma boys and girls aged 7-10 years to the general population by Moravec et al. [11], we found out that Roma pupils were significantly worse.

Key words: Roma pupils, EUROFIT, motor performance Abstract

Streszczenie

Celem badania była ocena cech somatometrycznych i sprawności fizycznej uczniów romskich klas pierwszych szkół podstawowych. Badanie przeprowadzono pod koniec roku szkolnego 2013/2014. Grupa badana składała się ze 188 uczniów w wieku 7-10 lat uczęszczających do szkół podstawowych w regionie Rimavská Sobota i Rožňava. Sprawność fizyczną badano za pomocą testu EUROFIT. Wyniki grupy badanej porównano do ogólnokrajowych wyników uczniów pochodzenia nieromskiego zgodnie z badaniem przeprowadzonym przez Moravec i in. [11]. Testy sprawnościowe EUROFIT obejmowały: próbę równowagi, próbę szybkości przemieszczania rąk, pomiar siły ścisku dłoni, pomiar siły tułowia (30 s), próbę skoczności, zwis na drążku, próbę wytrzymałości biegowej (10 × 5 m), bieg wahadłowy. Porównując sprawność badanej grupy chłopców i dziewcząt pochodzenia romskiego w wieku 7-10 lat do wyników populacji generalnej zanotowanych przez Moravec i in. [11], stwierdzono, że uczniowie romscy osiągnęli znacznie gorsze wyniki.

Słowa kluczowe: uczniowie romscy, EUROFIT, sprawność fizyczna

Introduction

Qualified estimates say that Europe has about eight to ten million Roma. Slovakia is one of the demographic point of view of the countries with the highest percentage of Roma. Statistical Office of the Slovak Republic states that Slovakia is now home to about 380.000 Roma. The number of members of the Roma ethnic group in the long term increases while this trend is maintained for about four decades. From 2015 will have annual growth of the Roma population declined. In 2025, will live in Slovakia, more than half a million Roma [1]. Roma children are an important component of the Roma population, while children under 14 years contributing to the overall structure of the non-Roma 27%, the proportion of children within the Roma population is only 50% [2]. Roma children are greatly influenced by family, according to their degree of integration. The Roma parents there are two extremes in rela-

tion to children. Or their children do not show any interest in, or unduly hinder and cling to them in a way that harms them. Roma families' represents mostly three and extended family with the assumption considerable social dependence on extended family, a large number of dependent children, different demographic characteristics of the individual members, the low economic, cultural and hygienic level, ethnic group consciousness, characteristic, interpersonal relations, the relationship of man and woman typical of the patriarchal family, low education of women and young women's involvement in employment [3]. In Slovakia, the long-lived trend of high unemployment Roma. Kumanová et al. [4] found that of 60 to 80% unemployment among Roma, and in some isolated settlements unemployment reaches 100%. Roma children are school specific serious social problem in a population presenting different value orientation differences formed lifestyle, low valuation of education in value systems and cultural, so-

Table 1. Comparison of our group of Roma children and general population according to Moravec et al. [11]

EUROFIT	Roma pupils		Moravec et al. [11]	
	girls	boys	girls	boys
Body high [cm]	132.32	132.56	146.03	143.52
Body weight [kg]	30.54	30.16	36.31	36.35
Flamingo balance test (n)	12.96	12.58	10.52	11.78
Shuttle endurance (n)	26.24	27.16	39.97	42.12
Plate tapping [s]	15.12	16.57	13.82	14.34
Standing broad jump [cm]	109.52	124.35	150.05	160.85
Hand dynamometer [kg]	16.32	17.52	21.75	24.56
Sit-ups 30 s (n)	13.25	14.78	21.61	23.27
Bent arm hang [s]	8.24	12.16	11.78	21.64
Shuttle run 10 × 5 m [s]	28.58	24.15	22.27	21.17

cial and economic factors underdeveloped Roma families [4]. Statistics indicate that as early as the first grade forfeit 22% of children, 5 times more likely to receive a mark of impaired behavior Roma pupils forfeited to 14-times more likely than students belonging to the majority and 30 times more likely to end of compulsory schooling in less than 8 year, 28 times more likely to put in special schools, 80% of pupils in special schools are Roma children, who are often very keen kids. The reason for this fact is not mental retardation, but social neglect. It follows that only 22.7% of the entire population can perform skilled work as they have completed secondary education [5-7]. The specificities of Roma youth in bio-physiological – motor attention in their work by several authors – Horváth, Horváth and Turek [8, 9]. using comparative analysis found that among Roma children missing developmental acceleration [8, 9]. Bernasovská and Bernasovský in their research found that in the study of biological parameters (body height, body weight, levels of gonadotropic hormones, etc.) [10]. Shall apply for the Roma ethnic factor and is therefore not properly assess the physical development of the standards the rest of the population [2].

Horváth to study 1.093 pupils living in Roma settlements found that the Roma population pupils falling behind in physical development for non-Roma 2 years and motor performance of more than 3 years [8]. The most significant lag found in the tests: test balance (flamingo), sit-ups, endurance running and the plate tapping [8]. Horváth on the survey sample 11-15 annual Roma children found lagging Roma children in body height and weight, which was more pronounced in girls [8]. The physical performance scored again significantly lagging behind girls, with the largest differences in performance recorded in strength and endurance capabilities [8]. Level complex skills motor docility Roma pupils first year of primary school through modified Iow-Brace test dealt Horváth and Turek [9]. The results of the monitoring shows that the Roma population lags in motor skills docility in the general population [9].

Generally speaking, the health status of the Roma is worse than that of the majority society, causing shorter life expectancy, high frequency of disease, often permanent reduction in physical and mental performance and higher infant mortality.

The aim of our research was to Roma pupils in the first grade of primary schools ascertain the essential characteristics somatometric and their level of physical performance

and compare with non-Roma population according to Moravec et al. [11].

Material and methods

The research was done at the end of the school year 2013/2014. The sample included 188 students aged 7th to 10th years in primary schools in the districts of Rimavská Sobota and Rožňava. Physically we investigated the performance test battery EUROFIT. Our research group was compared with a nationwide non-Roma by Moravec et al. [11] Test battery EUROFIT: flamingo balance test, plate tapping, hand dynamometer, sit-ups 30 s, standing broad jump, bent arm hang, shuttle run 10 × 5 meters, shuttle endurance run [11].

Results

Differences in our research group of Roma children were subsequently reflected in body height and also in body weight. In this case, we observed a statistically significant variation in the level of p 0.01 compared to the general population Moravec et al. [11], where our file significantly lagged. The biggest differences in somatometric characteristics were found mainly in boys and girls 10 years of age. The differences between our Roma pupils and general population according to Moravec et al. [11] we present in table 1.

Balance abilities our group of Roma boys aged 7-10 years were close to the performance of the general population, measured by Moravec et al. [11]. This fact was also confirmed by the results of the statistical evaluation, where we did not find statistically significant differences. When comparing the performance of our group of Roma girls aged 7-10 years to the general population by Moravec et al. [11], we found that 7 year old girl outperformed. In 8, 9 and 10 however, the performance was better than general population [11].

The plate tapping test, we found a weaker level of frequency rate of the dominant arm to the detriment of our pupils file (the only exception is a set of 8-year-old boys), when compared to our research sample with a population Moravec et al. [7].

Intersex performance comparison, we found that girls aged 7, 8 and 9 years, had the worse performance than

boys. The only exception is a set of 10 year old girls to achieve better performance than boys [11].

Standing broad jump is a test that assesses the explosive power of the lower limbs. In this test, in all age groups, our research group significantly lagged behind the performance, measured by Moravec et al. [11]. In terms of intersex differences have an explosive power of the lower limbs in all cases reported significant intersexual differences in favor of boys.

The hand dynamometer test – our research file lagged in performance for population Moravec et al., which showed a statistically significant at the $p = 0.01$ [11].

The test sit-ups, we found a significant delay in the performance of our group for population Moravec et al. [7].

The unfavorable performance was recorded in the test bent arm hang, where a set of boys, but also a set of girls lagged behind the performance of file Moravec et al. statistically significant at the $p = 0.01$ at 8.9 and 10 year old pupils [11].

Statistically significant differences in the performance of our group between Roma boys and girls were established at $p = 0.01$ in all age groups surveyed us.

Comparing the results of the test, the shuttle run 10×5 m with a population Moravec et al. [11], we found that our research file both boys and girls was “considerably slower” (differences at the $p = 0.01$ in all age groups of boys as well as girls).

The shuttle endurance run – when compared our group of Roma children with national population by Moravec et al. we found out that Roma boys and girls lagged considerably (in all age groups at the $p = 0.01$) [11].

Conclusions

The physical performance – we have seen the delay of Roma children in power, endurance, but also speed capabilities for file Moravec et al. [11]. Differences were at 1% level of statistical significance for all children aged 7-10 years. In the balance abilities our findings correlate well with the findings by Horváth [8]. His research has concluded that the non-Roma children not demonstrated consistently better level of balance abilities. We also agree with the Bernasovská and Bernasovský [10], that causes of backwardness of Roma children in this age group are affected by a total way of life of Roma children, poor nutrition, inappropriate social environment (housing, hygiene, clothing, education, irregular school attendance, skipping hours of physical education etc.). These factors have resulted in decreased motivation to perform physical exercise, less volitional effort and a reduced ability to concentrate on physical education classes [10].

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