

EDUCATION OF PARENTS AND MENARCHE AGE OF GIRLS FROM EASTERN POLISH REGIONS

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Youth that live in Eastern Polish regions are very seldom a subject of systematic anthropometric research. The only exception was observations of boys and girls from Podlaskie province done by Jelisiejew and associates (1963, 1974) and in Lubelskie Province done by Chrzastek-Spruch and associates (1968, 1973, 1975, and 1984). From the beginning of eighties scientists from Filial of Physical Education in Biala Podlaska started to evince activity in that domain (Wilczewski 1985, 1995, 2000, Arteczka 1989, Bergier and associates 1990, Raczyński and associates 1996, Stelmach 1996, Saczuk and associates 1995, Skład and associates 1996, 2000).

Eastern Polish areas are typically agricultural sparsely populated region and with high deficiency of large city agglomeration. In the reality each even the most homogeneous environment is characterized by inward differentiations that cause diversities in development temp of youth that inhabitant it. Wrońska-Więclaw (1974), Łaska-Mierzejewska (1993) and also Łuczak (1993) researching the matter of the onset menstruation age of rural girls emphasized the influence of parents' education, number of children in a family and family incomes.

The main aim of the research presented was to estimate the influence of parents' education on the average onset menstruation age of girls that live in different environments of Eastern Poland.

Materials and research methods

Presented here research materials make a fragment of a complex research that was done at the end of eighties (1985-1987), in which children and youth from such former provinces as Suwalskie, Białostockie, Białsko Podlaskie, Chelmskie, Zamojskie, Przemyskie and Krośnińskie.

18963 girls aged 7-19 were examined. The results of a poll were verified by an interview while doing anthropometric measurements. In this way there was compiled information about environmental and family *conditions of the youth researched*. Using "status quo" method there was aquired information about the first menstruation of the girls and the average menarche age was calculated using probits method according to Finney (1952).

Research results and its discussion

The average menarche age of girls from Eastern Polish regions we figured out to be 13,442 years and it was quite high in the comparison to the other Polish regions (Waliszko 1985, Łaska-Mierzejewska 1993, Charzewski 1998). In spite of certain homogeneity of socially-economical life conditions in that region there are considerable inward differences. Girls that lived in cities began menstruating in the age of 13,256 what was several months faster than girls of the same age that lived in villages and had their first menstruation at the age of 13,500. The most late that is in the age of 13,568 began menstruating girls that lived in small towns.

The factor that differentiated the menarche age was also level of parent's education. Analyzing menarche age depending upon the education of the father (table 1, figure 1)

it was stated that girls whose fathers had university education started menstruating the earliest that is at the age of 13,262. Slightly later, the age of 13,304 was the menarche age with girls from families where fathers had secondary education. Considerably higher a distance divides the other two groups of girls, the first one with basic level of fathers education, in which the average menarche age was 13,447 and girls from the group of primary father's education level in the average began menstruating in the age of 13,555.

Table 1

The average menarche age of girls from Eastern Polish regions in dependence from education level of father and mother and place of living (city, town, village).

Environment		n	x	S	
Place of living	All	18693	13,442	1,215	
	City	7037	13,256	1,167	
	Town	5227	13,568	1,273	
	Village	6429	13,500	1,145	
Education level Of mother	Primary	All	6786	13,573	1,241
		City	1125	13,466	1,288
		Town	1861	13,715	1,289
		Village	3800	13,528	1,192
	Basic	All			
		City	4317	13,501	1,197
		Town	1575	13,258	1,022
		Village	1202	13,609	1,279
	Secondary	All	1540	13,474	1,248
		City			
		Town	5230	13,289	1,141
		Village	2863	13,152	1,123
University	All	1494	13,383	1,149	
	City	873	13,452	1,150	
	Town				
	Village	2360	13,220	1,232	
		1308	13,167	1,143	
		670	13,297	1,365	
Education level Of father	Primary	All	6270	13,555	1,232
		City	1068	13,435	1,246
		Town	1622	13,697	1,262
		Village	3580	13,494	1,200
	Basic	All	6486	13,447	1,182
		City	2373	13,291	1,119
		Town	1999	13,540	1,270
		Village	2114	13,444	1,079
	Secondary	All			
		City	3835	13,304	1,227
		Town	2121	13,131	1,146
		Village	1075	13,381	1,180
	University	All	639	13,398	1,126
		City			
		Town	2102	13,262	1,178
		Village	1311	12,993	1,162
		531	13,264	1,243	
		260	13,335	1,136	

Succession sequence was proved in all the three environments (cities, towns, villages) but different was the way in which menarche age pyramid was formed and also distances that separate groups of examined girls that were formed taking into the consideration parent's education. Positively the earlier menarche age turned out in city environment, in which girls from families with university education of fathers started menstruating in the age of 12,993 and from groups with secondary level of father's education at the age of 13,331.

Also the average menarche age was low in group of girls that lived in cities and with secondary education of the father - 13,291. That group in the comparison with the others dominated over the groups of girls that lived in towns and villages of Eastern Poland. As close as were menarche age levels of girls from groups with secondary and university education of the father, both in cities and in villages, so big, but definitely later, was the gap between first menstruation in groups of girls coming from towns of primary (13,697) and basic (13,540) education of the father.

In city environment the influence of education of the father on menarche age gradually vanished away, what was proved by little time differences between the groups.

The distance that separate the extreme groups those of university and primary education levels is only 0,159 year.

Similar dependences came to pass between onset menstruation age and education level of the mother. The earliest began menstruating girls from the group of university education of mothers (13,220), not so much considerably later, at the age of 13,289 there was the first menstruation in the group of secondary education level of the mother. Considerably later, though at similar level, began menstruating girls from group of basic (13,501) and primary (13,573) education of the mother.

Similar as in the case of father's education the earliest began menstruating girls from city environment. Only it must be mentioned that in that group first began menstruating girls from families of secondary education (13,152), and little later at the age of 13,167 was the onset of menstruation in the group of girls with university education of the mother.

The presence of difficult development conditions that are in villages was proved by late appearance of menarche age of girls that grew up in that environment and come from families of basic (13,609) and primary (13,715) education level of the mother. In city environment there was a huge dependence of menarche from university education of the mother what allowed the girls to menstruate at the age 13,291. In the rest of the groups from that environment the essentiality of the influence of mother's education vanishes as in mentioned above case of influence of fathers education.

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The presented research results prove reports about influence of living area and the level of parent's education on menarche age of girls from other regions of the country. Łaska-Merzejewska as well as Łuczak (1993) when researching menstruating of girls from different regions of the country emphasized a very difficult socially- economic situation in villages that causes late entrance in the menarche by the girls that come from that conditions.

The presented material proves that phenomenon simultaneously emphasizing that it concerns in particular girls that come from families of basic and primary education of both parents.

TEMPO NARASTANIA RYTMU OBROTÓW W KRÓTKOTRWAŁYCH, SUPRAMAKSYMALNYCH WYSIŁKACH NA ERGOMETRZE ROWEROWYM U CHOPCÓW OTYŁYCH W WIEKU 11-12 LAT.

Łukasz DRUZIC

Celem badań było wykazanie czy stopień otluszczenia ma wpływ na sposób i tempo narastania rytmu obrotów podczas krótkich supramaksymalnych wysiłków na ergometrze rowerowym. W badaniach uczestniczyła grupa 40 chłopców w wieku 11 – 12 lat. Na podstawie