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STATE OF PHYSICAL DEVELOPMENT OF THE GYPSY NEONATES BORN IN 1976—1978 IN THE KLADNO AND CHOMUTOV DISTRICTS (CZECHOSLOVAKIA)

ABSTRACT. — *The research of the physical state of Gypsy neonates and of the living environments of their parents was implemented in 1976—1978 at the gynaecological and obstetric departments of the industrial districts of Chomutov and Kladno. The mean birth weights and lengths of Gypsy neonates showed significant differences compared with Czech neonates born in 1977, but are consistent with published data on Gypsy neonates. The groups are characterized by a high percentage of infants with a low birth weight, premature and immature infants.*

KEY WORDS: *Gypsy Neonates — Birth Weight — Birth Length — Social and Cultural Standard.*

INTRODUCTION

In the submitted paper the authors summarize the results of processing the basic characteristics of somatic development and basic indicators of the social background of Gypsy neonates in areas, hitherto not followed up, i.e. in the predominantly industrial districts of Kladno and Chomutov. The research was implemented in 1976—1978 as a sub-task of the Ministry of Education of the Czech Socialist Republic "Biological and medical aspects of education" with the perspective to check the state of somatic development of these children during school age, living in the above districts and attending primary or special schools. The investigation uses as a basis a previous work published by various authors between 1968 and 1976 pertaining to different groups of a varying social and regional background (Zeman, 1968; Malá, 1973, 1975; Bernasovský et al., 1975, 1976; Bernasovská et al., 1975; Hamplová, 1976; Vopatová, Malá, Hajnišová, 1982).

MATERIAL AND METHODS

The group from the Chomutov district comprises 109 gypsy neonates (63 boys and 46 girls) born at the gynaecological and obstetric department in Chomutov in 1977. In this group we can compare the investigated indicators with those of other neonates, i.e. with all 1836 neonates born in that year in Chomutov.

The group of gypsy neonates from the Kladno district comprises 411 children (204 boys and 207 girls) born in 1976—1978 at gynaecological and obstetric departments of hospitals in the Kladno district (i.e. Kladno and Slaný). The groups comprise all neonates, regardless of the period of gestation, except children from multiple pregnancies. The results provide information on the basic indicators of somatic development of neonates — birth weight and length. Data on the age distribution of mothers, parity, education and occupation of both parents render possible some orientation as regards the social and family background of Gypsy neonates.

RESULTS

Table 1 illustrates the mean birth weights of the Chomutov group (boys 2876 g, girls 2842 g) and the Kladno group (boys 3005 g, girls 2852 g). For comparison data of other authors are given: (Bernasovská et al., 1975; Malá, 1973; Zeman, 1968; Malá, 1975). The differences between the mentioned groups are below the borderline of statistical significance. The mean birth weights assessed from data assembled by the Czech Office of Statistics for children born in 1977 are 3382 g in boys and 3245 g in girls and are, as compared with all Gypsy children, significantly higher.

Table 2 contains data on the mean birth length of the group from Kladno and Chomutov and other gypsy groups recorded in the previous figure. The differences between gypsy groups are not significant; in boys the mean values vary between 48.0—48.7 cm, in girls between 47.2 and 48.5 cm. A significant difference in length was proved again on comparing the data with Czech neonates born in 1977, where the average for boys is 50.2 cm and for girls 49.5 cm.

In the Chomutov district there are 17.4 % Gypsy infants with low birth weight, as compared with 9.6 % in other Chomutov neonates born in 1977. In this connection it is important to emphasize that the percentage of low birth weights in

Chomutov neonates is 2.5 to 4 % higher than in some other districts in the CSSR investigated in 1977 (the results have not yet been published).

In the Kladno group there are as many as 21.4 % neonates with a low birth weight. Both data — for Kladno and Chomutov — are somewhat higher, as compared with data from the literature which quote values of 15 % or even less (Malá, 1973, 1975; Bernasovská et al., 1975; Hamplová, 1976). Higher values — round 37 % — were recorded only by Zeman (1968) and Bokšajová and Vaňová (1967) in groups with an extreme family background and a low social and health standard.

The mentioned data together with the fact that cca one fifth of the gypsy neonates from Chomutov are premature (19.3 %) and immature (21 %), as compared with 8.8 % premature and 8.7 % immature in the other Chomutov children, only confirms the negative effect of social, health and sanitary factors as well as of the cultural standard which play an important part already during the prenatal development. It is of interest that the reported percentage of pregnancies with complications in Gypsy women from Chomutov (7.3 %) is 5 % lower than in other women. It is possible that this low percentage of complicated pregnancies is only apparent as gypsy women pay less attention to their pregnancies. Complications during delivery are also 3 % fewer in Gypsy women (Gypsies 4.6 %, other women 7.6 %).

TABLE 1. Birth weights of new-born gypsy children

	Boys				Girls			
	<i>n</i>	\bar{X}	$\pm s$	$\pm m$	<i>n</i>	\bar{X}	$\pm s$	$\pm m$
Chomutov — 1977, Malá et al.	63	2 876	538,5	67,8	46	2 842	534,3	78,8
Kladno—Slaný 1976—1978, Vopatová et al.	204	3 006	570,5	39,9	207	2 852	553,5	38,5
East-Slovakian region 1968—1972, Bernasovský	1 356	2 956	537,4	14,6	1 281	2 846	516,9	14,4
Hradec Králové 1961—1970, Malá	60	2 912	492,0	63,9	56	2 950	381,0	50,8
Praha 1964—1966, Zeman	43	2 911	468,0	116,4	44	2 680	656,0	99,4
Teplice 1956—1965, Malá	74	2 989	591,0	68,7	47	2 917	516,0	74,8
CSSR 1977	93 228	3 382	571,0	1,9	88 535	3 246	511,0	1,8

TABLE 2. Birth lengths of new-born children

	Boys				Girls			
	<i>n</i>	\bar{X}	$\pm s$	$\pm m$	<i>n</i>	\bar{X}	$\pm s$	$\pm m$
Chomutov 1977, Malá et al.	63	48,5	2,8	0,3	46	48,5	3,4	0,5
Kladno—Slaný 1976—1978, Vopatová et al.	204	48,4	2,6	0,2	207	47,5	2,8	0,2
East-Slovakian region 1968—1972	1 356	48,5	3,0	0,1	1 281	47,9	2,7	0,1
Hradec Králové 1961—1970, Malá	60	48,0	2,5	0,3	56	47,9	1,9	0,3
Praha 1964—1966, Zeman	43	48,7	3,1	0,5	44	47,2	3,7	0,6
Teplice 1956—1965, Malá	74	48,6	2,7	0,3	47	48,1	2,7	0,4
CSSR 1977	93 228	50,2	2,6	0,0	88 535	49,5	2,5	0,0

As we were surprised by the high percentage of Gypsy children with a low birth weight, we recorded separately the percentage of children with a low birth weight born at the gynaecological and obstetric department in Kladno which is above all the catchment area of the industrial centre of the Kladno district and of children born in Slaný which is mainly the catchment area of the surrounding villages. Children with a low birth weight born in Kladno accounted for 23.8 %, those born in Slaný for 12.8 %. An explanation of this fact is impossible without a more detailed analysis of the socioeconomic background, the health status of parents and the course of pregnancy. We should like only to mention that the Kladno neonates come from families with a greater migration rate for many of them work in the Poldi Ironworks only for a short duration. Gypsy children born in Slaný come mostly from families settled for many years in the Kladno district. The parents of these children live mostly in the neighbouring villages and most of them work in the agriculture.

As to other investigated characteristics, we are presenting the age structure of the mothers. In the Kladno district the largest group of mothers is under 20 years — 37, 30.5 % of the mothers are 21 to 25 years old. In the Chomutov group the greatest proportion is formed by mothers between 21 and 25 years — 31 %, more than one quarter is formed by women under 20 years (26.2 %) and 27.1 % by women aged 26 to 30 years. The groups included cca 15 % mothers aged 18 years or less.

As 55–60 % of the mothers are under 25 years, both groups comprise many primiparae, secundiparae and tertiparae. A considerable percentage of women, i.e. 40–45 %, had four or more pregnancies.

Education and occupation are an indicator of the social status and cultural level of the Gypsy parents. 37.8 % mothers and 60.7 % fathers have completed primary education, incl. 2.8 % women and 19.2 % men who have completed an apprenticeship. 57 % of the mothers did not complete primary school and the same applies to 35.5 % of the fathers. 4 % of the mothers and 4 % of the fathers attended a special school for backward children. The fathers of these children are mostly workers — 80.8 % (73.4 % workers in industry, 7.4 % farm laborers), 6.4 % are employed in services, only one father is an office worker and in 12.1 % the occupation is not indicated. Among the mothers prevailed employment in services — 39.3 %, 33.6 % of the women are workers (29 % industrial workers, 4.6 % farm hands) and 27.1 % of the mothers did not state their employment.

CONCLUSION

In the submitted paper the authors summarize the results obtained when elaborating the biosocial characteristics of Gypsy neonates born in 1976–1978 in the Chomutov and Kladno districts. Concluding it can be summarized:

1. The mean birth weights and lengths of gypsy neonates from the Chomutov district (boys: 2876 g, 48.5 cm; girls: 2842 g, 48.5 cm) and from the Kladno district (boys: 3005 g, 48.4 cm; girls 2852 g, 47.5 cm) are consistent with published data on gypsy neonates.

2. The mean birth weights and lengths of gypsy neonates proved significant difference when compared with Czech neonates born in 1977.

3. The percentage of the premature child births, discovered only in Chomutov district, is heavy (19.3 %).

4. The groups from Chomutov and Kladno are characterized by a high percentage of infants with a low birth weight (Chomutov 17.4 %, Kladno 21.4 %).

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