

To Identify Medical and Social Factors Affecting the Formation of Physical Development of Early Children

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Annotation

Physical development (PD), characterizing the processes of growth and development of a child, is rightfully considered one of the most important criteria reflecting the health status of the child population, and data obtained from comprehensive morphofunctional examinations of children are the basis for population monitoring of the health status of schoolchildren in a specific territory. The structure of medical and social factors influencing the physical development of the examined children was analyzed, and significant factors were identified.

Keywords:

Physical development, medical and social significance, social hygiene and physiology, extragenital pathology.

Relevance. One of the main stages of managing the development of physical culture and sports involves monitoring the external situation in order to identify and use its favorable opportunities to achieve certain goals and avoid the threat of obstacles. This is achieved by studying the external environment and compiling a list of opportunities and threats, which in the future will make it possible to use favorable opportunities for the development of the industry [1]. This process is called analysis of environmental factors.

Successful solution to the problems of functioning and development of the field of physical culture and sports is possible only on a regulatory and legal basis [3]. Analysis of the regulatory framework showed that the legislation of Uzbekistan in the field of physical culture and sports is aimed at ensuring and protecting the rights of citizens to engage in physical culture and sports; Creation of legal guarantees for the functioning and development of the system of physical education and sports of the Republic of Uzbekistan; determination of the rights, duties and responsibilities of individuals and legal entities in the field of physical culture and sports, as well as legal regulation of their relations. Also, by law, citizens are provided with the necessary uniform standard of physical education provided by the state, the volume and composition of services in the field of physical culture and sports, time and information for teaching vital motor skills, and also guaranteed equal legal opportunities for all citizens for physical improvement, including mastering sports skills,

activities that contribute to the development of physical culture and sports and strengthening human health are encouraged.

Studying the health status of children and the factors influencing its formation is one of the urgent tasks of pediatrics, social hygiene and physiology.

Physical development has important medical and social significance. Medical and social factors, as a rule, are realized in the microsphere closest to the child, that is, in a family with various aspects of its life activity [6]. With pronounced social stratification of society, representatives of different groups not only live in significantly different environments, but also react differently to the influence of the same factors.

GOAL OF THE WORK

To identify medical and social factors influencing the formation of the physical development of young children.

RESEARCH METHODOLOGY

The study was conducted from 2018 to 2023. 2136 children aged from 1 month to 3 years were examined. Only children of health groups I and II participated in the examination. During the study, basic anthropometric indicators were measured. To analyze and evaluate the results of the measurements obtained, the examined children were divided into groups. The criteria for the groups were determined: decreed age, gender and anthropometric indicators (weight and height). Taking into account the variability of anthropometric indicators in children with age, for assessment and comparison the indicators are brought to a single scale of centile corridors (centile tables by A.V. Mazurin and I.M. Vorontsov).

In accordance with the classification of Yu. A. Knyazev [cit. according to Solovyova I. E. et al. (5)], the examined children of the region were distributed according to morphotypes . To resolve the question of whether the children initially had the same development parameters, we copied data from f. No. 112/u on the parameters of weight and height of examined children at birth. The copied data were also divided into centile corridors and grouped by morphotypes . In addition, to determine changes in physical development with age, the examined children were divided into groups by age from 1 month to 1 year and from 1 year 1 day to 3 years, between which comparisons were made.

For the purpose of medical and social examination of the child and his family, a questionnaire was developed and used. The questionnaire contained a number of questions determining the living conditions and material income of the family of the child being examined. The survey was conducted anonymously among mothers whose children were examined in the “Healthy Child” office.

Additional information about the state of health of the parents, characteristics of the course of

pregnancy and the obstetric and gynecological history of the mothers of the examined children, family income and the nature of the marriage was obtained when processing patronage cards. Living conditions and family income were assessed using survey data.

To identify the influence of medical and social factors on the formation of the physical development of the examined children, the procedure of multivariate analysis of variance was used. In this case, one of the dispersion factors was the gender of the children studied, which made it possible to separate the influence of gender differences and other factors. During the analysis, the statistical significance of the variance shares was assessed using Fisher's F test according to the level of probability of an erroneous assessment of reliability (p), which should not exceed 0.05 (with an accepted significance level of 5%). Data processing was carried out using the "Statistics" package of Microsoft Office Excel and SPSS 13.0 for Windows, STATGRAPHICS Plus for Windows and STATISTICA 6 programs.

RESEARCH RESULTS AND THEIR DISCUSSION

Among the examined patients, the most common were children with "hypersomia" (31%). The remaining morphotypes were: "normosomia" and "macrosomia" 20.9% each, "leptosomia" - 7.4%, "pachysomy" - 7%, "microleptosomia" - 6.2%, "microsomia" - 4.1%, "macroleptosomy" - 1.7% and "micropachysomy" - 0.8%. It is noteworthy that the bulk of the examined children are characterized by "large" body types, their share is 51.9% of all examined.

In Fig. 1 clearly shows that at birth, children corresponded to the normosomatic body type in 42.9%, which is significantly more than the number of children with other body types ($p < 0.001$). However, this indicator in the process of growth and development of children decreased by more than 2 times and at the time of the survey amounted to only 20.9% ($p < 0.001$).

More than half of the children examined were born to mothers aged 20 to 24 years. The main age of fathers at the time of conception was from 20 to 30 years (70.1%).

Among the mothers of the examined children, only 22% had no extragenital pathology. One of the extragenital diseases was recorded in 53% of mothers. At the same time, two pathologies were identified in 31.5% and three or more extragenital diseases were found in 15.5% of mothers. In Fig. Figure 2 shows the structure of extragenital pathology of mothers of the examined children living in the region. Among extragenital pathologies, the leading place was occupied by diseases of the endocrine system, represented in 98% of cases by diffuse enlargement of the thyroid gland with the preservation of euthyroidism, leading to changes in hormonal levels in the woman's body. The obtained results of the structure of extragenital pathology in pregnant women coincide with the literature data. The most common diagnosis during pregnancy is diffuse enlargement of the thyroid gland with persistence of euthyroidism [4].

In 39.2% of cases, the examined children were born to women whose pregnancy was accompanied by anemia. Gastrointestinal tract pathology occurred in 15.5% of mothers of the examined children. Among the pathologies of the gastrointestinal tract, chronic gastritis (89.7%), damage to the biliary system (21.4%) and duodenal ulcer (3.6%) were recorded.

An important social factor influencing the development of children's health is the birth of a child in marriage. According to the study, children born in a registered marriage made up just over half of the children surveyed (53.9%), those born in cohabitation - 25.4%, and from single mothers - 20.7%.

A study of the social factor "having children in marriage," which influences the development of children's health, revealed a high level of children born out of wedlock. However, given that, according to the literature [7], the health and development of children born in cohabitation is no worse, and according to some indicators even better than the health of children born in a registered marriage, only children born from "single parents" should be considered at risk. Mothers." The share of such children did not exceed 20.7%, which is significantly less than children who grew up in families with both parents ($p < 0.001$).

Most demographic studies note a strong influence on fertility, attitudes towards the quality of health and nutritional status of the child, and the social status of women [2].

An equally important indicator is the level of family income. According to an anonymous survey, only 32.6% of respondents noted that they do not have problems with money and live in abundance. This indicator coincides with the results obtained when processing copied data from patronage cards on the average monthly income per person in a family. 63.7% of families had income below the subsistence level, that is, below the poverty line. In families with low material income, 80.4% of respondents noted that there is enough money to purchase food and essential goods, 16% - only for food, and 3.6% of respondents indicated a lack of money even to purchase food.

The analysis of the correspondence of empirical distributions to the normal one showed that the distribution of the child's empirical indicators (weight, height, chest circumference) corresponds to the normal distribution at the significance level $p < 0.05$.

The study of the influence of various factors on the indicators of physical development of the examined children was carried out using the method of multivariate analysis of variance.

It was found that the formation of the morphotype at the age of 1 month to 1 year is significantly influenced by the course of pregnancy ($p < 0.003$), nature of marriage ($p < 0.013$) and family income level ($p < 0.012$). When studying the possible long-term consequences of the influence of various factors on the morphotype of children aged 1 to 3 years, only those factors whose impact was statistically proven for children under the age of 1 year were included in the analysis.

The results of the study of indicators confirm the long-term influence of obstetric and gynecological

history on the formation of the morphotype of the examined children ($p < 0.013$) and the influence of the nature of marriage ($p < 0.003$).

No reliable influence of other studied medical and social factors on the formation of the physical development of children in the region has been identified.

CONCLUSION

As a result of the research, the level of physical development in children examined in several child development departments of the Bukhara region worsened compared to the level of physical development of the same children at birth. Changes in the physical development indicators of the examined children living in the region are to a greater extent related to the obstetric and gynecological history of the mothers and the nature of the pregnancy in the mothers of the examined children, the nature of the marriage and the level of family income. The most significant medical and social factors leading to deterioration in physical development in the examined children in the region are realized during the period of intrauterine development and continue to influence throughout the period of their growth and development. It is necessary to further study the biological factors influencing the formation of the physical development of children after birth

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