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DEVELOPMENT OF HEALTHY CHILDREN OF EARLY AND PRESCHOOL AGE IN KHARKIV: I STAGE

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Резюме. *Physical activity and games are very important for normal development of abilities of the child, as they lay the foundation for the future abilities of the child to read, write, count and abilities of creative thinking. The game undeniably influences all the aspects of child development.*

Objective: *To evaluate the development of the children of 3, 4 and 5 years, living in Kharkiv and their peers, which go in for soccer to the football club for preschoolers "Footbik", based on the TOTAL SOCCER coaching method (the Netherlands). Methods: a prospective medical and social study of 323 children aged from 2 to 4.5 years living in Kharkiv (115 from kindergartens and 208 from sort section with special football methodics). The design of research included development of application forms, questionnaire for the parents of the children, creation of database and statistic processing of the obtained material on STATISTICA 7.*

Results. *The motor skills in the children of both groups did not differ. It is quite understandable that parents are willing for a "rapid physical" development of their child and send him/her to the football club for preschoolers. But the advance in motor skills in comparison with the peers needs time.*

We have analyzed the period of attending the football club for preschoolers by the children of comparison group and according to this, have carried out the analysis of the children development. The majority of children - 143 (69%) - have been attending the sports club for less than half a year ($p<0.001$). From 6 to 12 months the sports club was attended by 54 (26%) children, more than a year - 11 (5%) children. That's why for a more detailed analysis and collection of the evidence it is necessary to conduct the II stage of research, namely, the influence of the period of attending the football club for preschoolers on the child development. Our stage of the research defined that the frequency of the cognitive (intellectual) development was better in children going to the football club for preschoolers with the special coaching method. It should be pointed out that the advance of social and emotional development was observed only in children going to kindergartens.

Conclusions. *It was identified that physical development in children of the early and preschool age does not differ in children going to kindergartens or football club for preschoolers. A statistically important frequency of advancement in cognitive (intellectual) development of the child was recorded among the children going to the football club for preschoolers. An advancement in social and emotional development was recorded in children going only to kindergartens.*

Key words: *Children; Preschool Age; Development; Coaching.*

Game is an essential thing for the child development, as it contributes to the child's cognitive, physical, social and emotional well-being [1]. Physical exercises and games not only improve health and develop the child's body, but they are also a means of building character, they affect the child's behavior, as during games and physical exercise, the child learns to change his/her interests according to the interests of the group, to achieve the set goals with joint efforts, to form the conscience of the child properly. Children become friendly, disciplined, learn to consider their forces, feel that they are a part of the group.

Physical activity is quite important for normal development of the child, moreover, it lays the foundation for other spheres and abilities of the child [2-4].

A special significance physical development attains in children of early and preschool age. Modern pediatric science evaluates the development of children of early age according to the main domains (motor skills, cognitive skills, language, social and emotional development and adaptability). The Center for Disease Control and Prevention, USA, currently offers 38 screening tests and scales for evaluating children development [5].

Unfortunately not a single scale or a screening test is used in Ukraine, which does not allow to compare the development of the children of Ukrainian population with the children population of other countries as well as to improve the quality of children medical care.

Physical activity and games are very important for normal development of abilities of the child, as they lay the foundation for the future abilities of the child to read, write, count and abilities of creative thinking. The game undeniably influences all the aspects of child development. In the process of game a child learns to draw conclusions, foresee the interconnection between events and processes. Team games develop the necessary social skills, a child learns to cooperate, defend his/her point of view, resolve conflicts (sometimes even with the help of adults). Recently, the results of the meta-analysis have been published, which prove that physical activity not only increases the functional capacity of the brain, but also prevents negative morphologic changes [6].

Objective - to evaluate the development of the children of 3, 4 and 5 years, living in Kharkiv and their peers, which go in for soccer to the football club for preschoolers "Footbik", based on the TOTAL SOCCER coaching method (the Netherlands).

Materials and methods of research

A prospective medical and social study of 323 children aged from 2 to 4.5 years living in Kharkiv was conducted during 2016-2017 yrs. The design

of research included development of application forms, questionnaire for the parents of the children (September - December 2016), creation of database and statistic processing of the obtained material (January - June 2017). The questionnaire for parents was elaborated within the main domains. Medical domain includes physical development of the child, namely, the conformity of the body mass with the height and age; diseases in the medical history. Anthropomorphic measures were compared with the data of their sigmal allocation according to the age with the help of tables [7]. The domain of child development according to the main spheres: motor, cognitive, and social development. The given domain of the questionnaire was elaborated on the basis of information material on the child development provided by the Government of Western Australia, Department of Health for the children aged 3-4 years and 4-5 years [8, 9]. The delay in development was established, when a child didn't possess the skills, described for each sphere of development at a definite age. The advance in development was established by the questions of the questionnaire, which concerned older age for each sphere of development.

The method of selecting parents for the questionnaire was random. The parents of 115 children were interviewed in preschool institutions of Kharkiv by agreement of parents (the index group), separately were interviewed the parents of 208 children, going to the football club for preschoolers «Footbik», based on the TOTAL SOCCER coaching method (The Netherlands) (comparative group). For the statistic analysis of the data obtained with the questionnaire, a database with the number of observations for each answer was created (Excel for Windows). Description of quantitative and qualitative figures, intragroup changes were estimated with the help of cross tables with frequency and function in order to be able to combine the frequency of manifestation of observing on different levels the factors, studied with the help of STATISTICA 7. In order to compare the sampling parts, the method of angular transformation with the evaluation of F-criterion was used. The difference between parameters, which were compared by two points was considered statistically significant in $p<0.05$.

The results and their discussion

The average age of children of the index group - 3.6 (min - 2.9; max - 4.8) did not differ from the average age of the children from comparison group - 3.7 (min - 2.5; max - 4.8) years ($p>0.05$).

The respondents were mainly mothers. In kindergartens, 94% of questionnaires were answered by mothers, 3.4% by parents and 2.6% by grand-mothers and grand-fathers. The respondents of the sports club divided in the following way: mothers - 88% ($p=0.0843$), fathers - 10.5%, grandmothers and nannies - 1.5%. Thus, it can be said that in our society the development of children of early and preschool age is more typical for mothers. Even to such a "manly" football club for preschoolers children are carried by mothers.

Medical domain

When evaluating the health of children, it was detected that in 109 (95%) children of the index group the body mass corresponded to the normal measures according to the age, 1 (1%) child had a delay in 2 standard deviations, in 4 (5%) children the body mass was more than 2 standard deviations. In 186 (89%) children, who went to the sports club, the body mass was within the normal range, 1 (0,5%) child turned out to have delay in body mass in 2 standard deviations, in 21 (10%) the body mass corresponded with the values of more than two standard deviations. This is what the distribution of the height in children look like: in 103 (90 %) children of the index group the height corresponded with the age, in 2.3% children there was a delay in growth of 2 standard deviations, 8 % children had physical index of growth of more than 2 standard deviations. In 186 (89 %) children of the football club for preschoolers the height corresponded with the normal range, 1 (0.5 %) child turned out to have a delay in growth of 2 standard deviations, in 21 (10 %) children the height was more than 2 standard deviations. It should be mentioned that overweight was not observed in children, so their development can be considered harmonious. Thus, physical development of children of both groups was the same.

The data on the children morbidity in both groups turned out to be interesting. It is known that the children of early age often fall ill with respiratory and infectious diseases [11, 12]. While questioning the parents on the children morbidity it was found that 92 (80%) and 164 (79%) children of both groups had respiratory diseases 6 times a year ($p=0.8318$). But allergic and chronic diseases (retinopathy, hydronephrosis, hydrocephaly, etc.) were found in 12 (6 %) children from the comparison group ($p=0.0331$) and were not at all observed in the children of the index group. The desire of parents to improve the health of their children by means of sports is fully understood.

As for the children infectious diseases (chickenpox, rubella, infectious mononucleosis, etc.), 13 (11%) parents of the index group and 38 (18%) parents of the study group registered them in the responses without a significant difference ($p=0.971$).

It was identified by means of cross tables that children going to kindergartens or those who were the only child in the family often fell ill with respiratory diseases ($p<0.05$). The worries of parents concerning the state of health among the children going to the sports club were not connected with frequent respiratory diseases, while such worries were observed among the parents, who educated their children at home ($p<0.05$).

The environment

The development of the child of early age is influenced by the surrounding environment [15]. Thus, even the second child in the family already has a different environment for development, as he/she has a brother or a sister, compared with the first child. The evidence suggests that deprivation of parental care, rude parental treatment or parental hyperprotection lead to hyperintimate accentuation of personality and is the consequence of loss of interest and parents' control over the child, significant disorders of multiple spheres of child development [16].

The 49 children (43%) of the index group and 82 (39%) children of the comparison group had siblings ($p=0.4835$). The 78 (68%) children of the index group

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and 153 (74%) children of the comparison group were first-born children in the family (p=0.2517). The second 32 (28%) and 42 (20%) (p=0.1020), the third or the forth - 5 (4%) and 13 (6%) (p=0.4424) accordingly. There was one pair of twins among the children of the index group and one pair of triplets in the comparison group. children

Thus, one can state that currently the majority of families in our society bring up one child - 66 (57%) and 126 (61%). Attending different classes for children, sports groups also can be considered as "socialization" of the child of the early and preschool age. A cross-check questioning for parents of both groups was carried out. The parents, whose children went into kindergarten, were asked whether their children attended extra sports classes or groups. While the parents of the children going into sports clubs, were asked which establishment attended their children - 30 (26%) children attended sports classes and groups, among the children of the football club for preschoolers - 164 (79%) went to the kindergartens, and 2 children additionally attended a "development center".

Child development. First of all, parents dream that their child becomes a harmoniously developed person. That is why it is very important to focus the attention of parents, medical professionals and teachers on the patterns of development of the child during his/her first years of life.

The comparative analysis of the main spheres of development of children of the study groups is shown in Table 1.

Table 1

The analysis of development of 323 children of early and preschool age in the main spheres according to the data obtained with the parents questionnaire, abs.(%)

Question	Index group n=115	Comparison group n=208	p
Physical development			
Questions on the skills for the particular age			
- hops in one place on both feet	115 (100)	204 (98)	0.4990
- leans forward and doesn't fall	113 (98)	203 (97.5)	0.5921
- steps over small barriers	115 (100)	208 (100)	1.0
- catches a ball with both hands	107 (93)	194 (93.2)	1.0
- climbs the ladder up and down without the help of adults	114 (99)	203 (97.5)	0.2505
- dresses/undresses himself/herself, cleans teeth without the help of adults	91 (79)	157 (75.4)	0.4180
Questions on the skills which advance age			
- fastens zippers, buttons, snap buttons without help	63 (54.4)	104 (50)	0.4915
- holds balance well: confidently walks along a plank, lying horizontally, or along the pavement	95 (82.6)	171 (82.2)	1.0
- confidently holds a pen/pencil in his/her hand	106 (92)	161 (77.4)	0.0008
Cognitive (intellectual) developent			
Questions on the skills for the particular age			
- correctly names familiar colors	99 (86)	202 (97)	0.0002
- understands prime numbers and counts till five	93 (80)	199 (95.6)	0.0001
- can be separated from mom/dad/caregiver for the whole day without a problem	100 (87)	175 (84)	0.4694
- knows his/her close relatives and friends, in kindergarten calls his/her nursery teacher by name	97 (84.3)	193 (92.7)	0.0276
- recites small poems by heart	80 (69.5)	183 (87.9)	0.0001
- correctly answers the questions connected with the recent events (Where did you walk today? Who did you meet?)	96 (83.4)	189 (90.8)	0.0339
Questions on the skills which advance age			
- during the games willingly involves fantasy, develops the scenario of the game	86 (74)	181 (87)	0.0036
- can write his/her name, some numbers, letters.	27 (23.4)	52 (25)	0.6884
- understands the most simple cause and effect relationships (Why mom washes the clothes? Why does dad prepare a supper?).	91 (79.1)	188(90)	0.0066
Social and emotional development			
Questions of the skills for particular age			
- wants to help parents with everyday routine tasks (sweep the floor, collect all the toys in the box)	108 (93.9)	201 (96.6)	0.2401
- understands the meaning of "mine" and "his/hers"	111 (96.5)	190 (91.3)	0.0974
- inherits everything from parents and friends	109 (94.7)	171 (82)	0.0029
- takes on different social roles in games (imitation of adult actions in games)	86 (74.7)	198 (95)	0.0001
- able to feel such complicated emotions as insult, disappointment, shame, confusion	109 (94.7)	188 (90.3)	0.1182
- likes praise, longs to be praised	106 (92.1)	128 (61.5)	0.0001
Questions on the skills, which advance age			
- during the games shows himself\herself as a team member, negotiates with the members of his/her team	74 (64.3)	194 (93.2)	0.0001
- is familiar with the notion of sex	104 (90.4)	169 (81.2)	0.0345
- knows what rules are (in particular, the rules of the game)	76 (66)	26 (12.5)	0.0001

Thus, the motor skills in the children of both groups did not differ. It is quite understandable that parents are willing for a "rapid physical" development of their child and send him/her to the football club for preschoolers. But the advance in motor skills in comparison with the peers needs time.

We have analyzed the period of attending the football club for preschoolers by the children of comparison group and according to this, have carried out the analysis of the children development. The majority of children - 143 (69%) - have been attending the sports club for less than half a year ($p<0.001$). From 6 to 12 months the sports club was attended by 54 (26%) children, more than a year - 11 (5%) children. That's why for a more detailed analysis and collection of the evidence it is necessary to conduct the II stage of research, namely, the influence of the period of attending the football club for preschoolers on the child development.

But the first stage of the research defined that the frequency of the cognitive (intellectual) development was better in children going to the football club for preschoolers with the special coaching method.

It should be pointed out that the advance of social and emotional development was observed only in children going to kindergartens.

Conclusion

1. It was identified that physical development in children of the early and preschool age does not differ in children going to kindergartens or football club for preschoolers.

2. A statistically important frequency of advancement in cognitive (intellectual) development of the child was recorded among the children going to the football club for preschoolers.

3. An advancement in social and emotional development was recorded in children going only to kindergartens.

In perspective the further research dedicated to the study of development of children of the early and preschool age according to the period and frequency of going to the football club for preschoolers.

Contributors

The first and second authors designed the study, performed the statistical analyses and wrote the manuscript. The third author was involved in data collection of the study. All authors contributed to and have approved the final manuscript.

Литература

1. Ginsburg KR. The importance of play in promoting healthy child development and maintaining strong parent-child bonds. Pediatrics. 2007;119(1);182-91. doi.org/10.1542/peds.2006-2697.

2. Tomonari RFD. Stages of Growth Child Development - Early Childhood (Birth to Eight Years), Middle Childhood (Eight to Twelve Years) [Internet]. 2011 [cited 2018 Apr 3]. Available from: http://education.stateuniversity.com/pages/1826/Child-Development-Stages-Growth.html#ixzz4oIdc7wxl

3. Abdelkarim O, Ammar A, Chtourou H, Wagner M, Knisel E, Hökelmann A, Bös K. Relationship between motor and cognitive learning abilities among primary school-aged children. Alexandria Journal of Medicine. 2017;53(4):325-31. doi.org/10.1016/j.ajme.2016.12.004.

4. Martin R, Tigera C, Denckla MB, Mahone EM. Factor structure of pediatric timed motor examination and its relationship with IQ. Dev Med Child Neurol [Internet]. 2010[cited 2018 Mar 6];52(8):e188-194. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1469-8749.2010.03670.x doi.org/10.1111/j.1469-8749.2010.03670.x.

5. Ringwalt S, compiler. Developmental screening and assessment instruments with an emphasis on social and emotional development for young children ages birth through five centers for disease control and prevention. Chapel Hill: Nectac [Internet]. 2008 [cited 2017 Nov 12]. Available from: http://www.nectac.org/~pdfs/pubs/screening.pdf

6. Yang J. The influence of motor expertise on the brain activity of motor task performance: A meta-analysis of functional magnetic resonance imaging studies/ Cogn Affect Behav Neurosci. 2015;15(2):381-94. doi: 10.3758/s13415-014-0329-0.

7. The WHO Child Growth Standards. [Internet]. WHO; Available from: http://www.who.int/childgrowth/standards/en/

8. Child development 3-4 years WA. [Internet]. State of Western Australia. 2017[cited 2018 Apr 17]. Available from: http://ww2.health.wa.gov.au/~/media/Files/Corporate/general%20documents/CACH/CAH-003424_Child_development_3-4_years_FNL.ashx

9. Child development 4-5 years WA [Internet]. State of Western Australia. 2017[cited 2018 Apr 12]. Available from: http://ww2.health.wa.gov.au/~/media/Files/Corporate/general%20documents/CACH/CAH-003425_Child_development_4-5_years_FNL.ashx

10. Эйдемиллер ЭГ, Юстицкис ВВ. Психология и психотерапия семьи. 3-е изд. Санкт-Петербург: Питер; 2002. Анализ семейных взаимоотношений (АСВ); с.585-595.

11. Krishnan A, Amarchand R, Gupta V, Lafond KE, Suliankatchi RA, Saha S. Epidemiology of acute respiratory infections in children - preliminary results of a cohort in a rural north Indian community. BMC Infect Dis. 2015;15:462.

doi: 10.1186/s12879-015-1188-1.

12. TregoningJS, Schwarze J. Respiratory viral infections in infants: causes, clinical symptoms, virology, and immunology.

References

1 Ginsburg KR. The importance of play in promoting healthy child development and maintaining strong parent-child bonds. Pediatrics. 2007;119(1);182-91. doi.org/10.1542/peds.2006-2697.

2. Tomonari RFD. Stages of Growth Child Development - Early Childhood (Birth to Eight Years), Middle Childhood (Eight to Twelve Years) [Internet]. 2011 [cited 2018 Apr 3]. Available from: http://education.stateuniversity.com/pages/1826/Child-Development-Stages-Growth.html#ixzz4oIdc7wxl

3. Abdelkarim O, Ammar A, Chtourou H, Wagner M, Knisel E, Hökelmann A, Bös K. Relationship between motor and cognitive learning abilities among primary school-aged children. Alexandria Journal of Medicine. 2017;53(4):325-31. doi.org/10.1016/j.ajme.2016.12.004.

4. Martin R, Tigera C, Denckla MB, Mahone EM. Factor structure of pediatric timed motor examination and its relationship with IQ. Dev Med Child Neurol [Internet]. 2010[cited 2018 Mar 6];52(8):e188-194. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1469-8749.2010.03670.x doi.org/10.1111/j.1469-8749.2010.03670.x.

5. Ringwalt S, compiler. Developmental screening and assessment instruments with an emphasis on social and emotional development for young children ages birth through five centers for disease control and prevention. Chapel Hill: Nectac [Internet]. 2008 [cited 2017 Nov 12]. Available from: http://www.nectac.org/~pdfs/pubs/screening.pdf

6. Yang J. The influence of motor expertise on the brain activity of motor task performance: A meta-analysis of functional magnetic resonance imaging studies/ Cogn Affect Behav Neurosci. 2015;15(2):381-94. doi: 10.3758/s13415-014-0329-0.

7. The WHO Child Growth Standards. [Internet]. WHO; Available from: http://www.who.int/childgrowth/standards/en/

8. Child development 3-4 years WA. [Internet]. State of Western Australia. 2017[cited 2018 Apr 17]. Available from: http://ww2.health.wa.gov.au/~/media/Files/Corporate/general%20documents/CACH/CAH-003424_Child_development_3-4_years_FNL.ashx

9. Child development 4-5 years WA [Internet]. State of Western Australia. 2017[cited 2018 Apr 12]. Available from: http://ww2.health.wa.gov.au/~/media/Files/Corporate/general%20documents/CACH/CAH-003425_Child_development_4-5_years_FNL.ashx

10. Eydemiller EG, Yustitskis VV. Psikhologiya i psikhoterapiya sem'i. 3-e izd. Sankt-Peterburg: Piter; 2002. Analiz semeynykh vzaimootnosheniy (ASV) [Analysis of family relationships (DIA)]; s.585-595 (in Russisan).

11. Krishnan A, Amarchand R, Gupta V, Lafond KE, Suliankatchi RA, Saha S. Epidemiology of acute respiratory infections in children - preliminary results of a cohort in a rural north Indian community. BMC Infect Dis. 2015;15:462. doi: 10.1186/s12879-015-1188-1.

12. TregoningJS, Schwarze J. Respiratory viral infections in

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Clin Microbiol Rev. 2010;23(1):74-98. https://dx.doi.org/10.1128%2FCMR.00032-09.

13. Gluckman PD, Hanson MA, Spencer HG, Bateson P. Environmental influences during development and their later consequences for health and disease: implications for the interpretation of empirical studies. Proc Biol Sci. 2005; 272(1564):671-7. https://dx.doi.org/10.1098%2Frspb.2004.3001.

14. Пеньков АЮ. Характеристика развития детей с различной степенью родительской депривации. Вопросы теоретической и клинической медицины. 2014;17(2):58-60.

РОЗВИТОК ЗДОРОВИХ ДІТЕЙ РАННЬОГО І ДОШКІЛЬНОГО ВІКУ В ХАРКОВІ: І ЧАСТИНА

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Резюме

Вступ. Фізична активність і гра дуже важливі для нормального розвитку здібностей дитини, оскільки вони закладають основу для майбутніх здібностей дитини читати, писати, рахувати і здібностей творчого мислення. Гра, безсумнівно, впливає на всі аспекти розвитку дитини.

Мета. Оцінити розвиток дітей 3, 4 і 5 років, що проживають в Харкові і їхніх однолітків, які займаються футболом в футбольному клубі для дошкільнят «Footbik», на основі методу коучингу TOTAL SOCCER (Нідерланди),

Методи. Проспективне медичне і соціальне дослідження 323 дітей у віці від 2 до 4,5 років, що проживають у Харкові (115 з дитячих садів і 208 з секції зі спеціальною футбольної методикою). Проект дослідження включав розробку форм заявок, опитувальник для батьків дітей, створення бази даних і статистичну обробку отриманого матеріалу на основі STATISTICA 7.

Результати. Моторні навички у дітей обох груп не відрізнялися. Цілком зрозуміло, що батьки готові до «швидкого фізичного» розвитку своєї дитини і відправляють його у футбольний клуб для дошкільнят. Але просування в моторних навичках у порівнянні з однолітками вимагає часу.

Ми проаналізували період відвідувань футбольного клубу для дошкільнят дітьми групи порівняння і відповідно до цього провели аналіз розвитку дітей. Більшість дітей - 143 (69%) - відвідують спортивний клуб менш ніж півроку ($p < 0,001$). З 6 до 12 місяців в спортивному клубі взяли участь 54 (26%) дітей, понад рік - 11 (5%) дітей. Ось чому для більш детального аналізу і збору доказів необхідно провести II етап досліджень, а саме вплив періоду відвідування футбольного клубу для дошкільнят на розвиток дитини. Наш етап дослідження визначив, що частота пізнавального (інтелектуального) розвитку була краще у дітей, які вирушають у футбольний клуб для дошкільнят за допомогою спеціального методу коучингу. Слід зазначити, що розвиток соціального і емоційного розвитку спостерігалося тільки у дітей, які відвідують дитячі садки.

Висновки. Було встановлено, що фізичний розвиток у дітей раннього та дошкільного віку не відрізняється у дітей, які відвідують дитячі садки або футбольний клуб для дошкільнят. Статистично важлива частота просування в пізнавальному (інтелектуальному) розвитку дитини була відзначена серед дітей, які відвідують футбольний клуб для дошкільнят. У дітей, які відвідують дитячі садки, відзначалося поліпшення соціального і емоційного розвитку.

Ключові слова: діти; дошкільний вік; розвиток; коучинг.

infants: causes, clinical symptoms, virology, and immunology. Clin Microbiol Rev. 2010;23(1):74-98. https://dx.doi.org/10.1128%2FCMR.00032-09.

13. Gluckman PD, Hanson MA, Spencer HG, Bateson P. Environmental influences during development and their later consequences for health and disease: implications for the interpretation of empirical studies. Proc Biol Sci. 2005; 272(1564):671-7. https://dx.doi.org/10.1098%2Frspb.2004.3001.

14. Pen'kov AYu. Kharakteristika razvitiya detey s razlichnoy stepen'yu roditel'skoy deprivatsii [The characteristics of children's development with different degrees of a parent's deprivation]. Voprosy teoreticheskoy i klinicheskoy meditsiny. 2014;17(2):58-60 (in Russian).

РАЗВИТИЕ ЗДОРОВЫХ ДЕТЕЙ РАННЕГО И ДОШКОЛЬНОГО ВОЗРАСТА В ХАРЬКОВЕ: I ЧАСТЬ

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Summary

Введение. Физическая активность и игры очень важны для нормального развития способностей ребенка, поскольку они закладывают основу для будущих способностей ребенка читать, писать, считать и способностей творческого мышления. Игра, несомненно, влияет на все аспекты развития ребенка.

Цель: Оценить развитие детей 3, 4 и 5 лет, проживающих в Харькове и их сверстников, которые занимаются футболом в футбольном клубе для дошкольников «Footbik», на основе метода коучинга TOTAL SOCCER (Нидерланды),

Методы. Проспективное медицинское и социальное исследование 323 детей в возрасте от 2 до 4,5 лет, проживающих в Харькове (115 из детских садов и 208 из секции со специальной футбольной методикой). Проект исследования включал разработку форм заявок, вопросник для родителей детей, создание базы данных и статистическую обработку полученного материала на основе STATISTICA 7.

Результаты. Моторные навыки у детей обеих групп не отличались. Вполне понятно, что родители готовы к «быстрому физическому» развитию своего ребенка и отправляют его в футбольный клуб для дошкольников. Но продвижение в моторных навыках по сравнению со сверстниками требует времени.

Мы проанализировали период посещений футбольного клуба для дошкольников детьми группы сравнения и в соответствии с этим провели анализ развития детей. Большинство детей - 143 (69%) - посещают спортивный клуб менее чем полгода ($p < 0,001$). С 6 до 12 месяцев в спортивном клубе приняли участие 54 (26%) детей, более года - 11 (5%) детей. Вот почему для более детального анализа и сбора доказательств необходимо провести II этап исследований, а именно влияние периода посещения футбольного клуба для дошкольников на развитие ребенка. Наш этап исследования определил, что частота познавательного (интеллектуального) развития была лучше у детей, отправляющихся в футбольный клуб для дошкольников с помощью специального метода коучинга. Следует отметить, что развитие социального и эмоционального развития наблюдалось только у детей, посещающих детские сады.

Выводы. Было установлено, что физическое развитие у детей раннего и дошкольного возраста не отличается у детей, посещающих детские сады или футбольный клуб для дошкольников. Статистически важная частота продвижения в познавательном (интеллектуальном) развитии ребенка была отмечена среди детей, посещающих футбольный клуб для дошкольников. У детей, посещающих детские сады, отмечалось улучшение социального и эмоционального развития.

Ключевые слова: дети; дошкольный возраст; развитие; коучинг.

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