

TRANSFORMATION FLAT FOOT LEVEL BY HIGHER RECREATIVE EXERCISES AT PRESCHOOL OFFICE „PČELICA” IN NIŠ – SERBIA

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(Professional paper)

Jadranka Kocić¹, Zoran Jonić² and Mirjana Petrović²

¹University of Priština Faculty for Sport and Physical Education, Leposavić, Serbia

(Kosovo&Metohia) Srbija

²Preschool Office „Pčelica”, Niš - Serbia

Abstract

The research was realized in 19 kindergartens, total 1463 children old 5-6 years. To estimate level deforms development, it was used inspect method. To estimate precise its level, it was used food mark, plantogram. System inspecting of children was realized in September 2010. in cooperation with Sport Medicine Dispensary in Nis and specialists for physical education in preschool Office „Pčelica” in Nis by IBM method for measurement foot level. It can concluded that the great number of children is under the foot postural disturbance, that shows 62,74% deformity or postural disturbance.

Keywords: method of inspection, plantogram, body status, motori skills

INTRODUCTION

Reduced physical activity could be defined as a disease of the 21st century. The development of the contemporary techniques and technology led to the situation where there is less and less time for physical exercise. Therefore, the body status of the preschool children becomes seriously degraded. Many studies and researches, done among preschool and school population, point at this. So, quite logical conclusion is that, if among the youngest population, a body status has been degraded, some serious postural disorders and body deformities among older generations can be expected.

Modern children grow and develop under the dominant influence of computers, video games, satellite programs etc. In the basis of the existence of man, as a biological being, are moving, motion and physical activity. If motion and moving, as basis of every work, are reduced to a minimum, it can be assumed in what direction man's locomotive feature will be developed in the near future.

The corresponding program of physical exercises, influence the body status of children as preventive and corrective means.

Special attention should be paid to the basic means of prevention and correction, i.e. the move-

ment.

Body deformity can permanently depict a child, not only through physical disfiguration, but also through psychological disturbance. Consequently, the main task is timely detection of a deformity and maximum commitment to prevent, stop and eliminate its development.

METHODS

Aiming to establish the degree of deformity, first of all, the method of inspection was used. However, in order to determine the degree of deformity development, a footprint, or so called plan-togram, is used. Systematic periodic examination of footprint in children was performed in September 2010, by Health Center for Sports Medicine in Nis, as well as by expert associates for physical education from the pre-school institution „Pcelica” in Nis, according to the program for measuring the condition of feet method. The examination was done in 19 kindergartens and it comprised 1463 children, aged 5-6. The results of the examination were processed by the help of the basic statistics method and were presented descriptively.

1. KINDERGARDEN "BAJKA"

Number of children: 128, Checkuped: 99

No deformity: 58, With deformity: 41

PES PLANI	16
PES PLANO VALGUS	25
PES VALGUS	/
B.O.	58
PES EXCAVATUM	/

Boys: 57, Boys deformity: 26

Girls: 42, Girls deformity: 15

Boys B.O : 31, Girls B.O: 27

2. KINDERGARDEN "BISER"

Number of children: 53, Checkuped: 38

No deformity: 11, With deformity: 27

PES PLANI	4
PES PLANO VALGUS	16
PES VALGUS	7
B.O.	11
PES EXCAVATUM	/

Boys: 20, Boys deformity: 18

Girls: 18, Girls deformity: 9

Boys B.O : 2, Girls B.O : 9

3. KINDERGARDEN "SLAVUJ"

Number of children: 111, Checkuped: 88

No deformity: 29, With deformity: 59

PES PLANI	19
PES PLANO VALGUS	34
PES VALGUS	6
B.O.	29
PES EXCAVATUM	/

Boys: 46, Boys deformity: 35

Girls: 42, Girls deformity: 24

Boys B.O : 11, Girls B.O: 18

4. KINDERGARDEN " BUBAMARA"

Number of children: 103, Checkuped: 78

No deformity: 21, With deformity: 57

PES PLANI	22
PES PLANO VALGUS	34
PES VALGUS	1
B.O.	21
PES EXCAVATUM	/

Boys: 47, Boys deformity: 37

Girls: 31, Girls deformity: 20

Boys B.O : 10,, Girls B.O: 11

5. KINDERGARDEN " PLAVI ÈUPERAK"

Number of children: 77, Checkuped: 53

No deformity: 14, With deformity: 39

PES PLANI	12
PES PLANO VALGUS	16
PES VALGUS	11
B.O.	14
PES EXCAVATUM	/

Boys: 28, Boys deformity: 24

Girls: 25, Girls deformity: 15

Boys B.O : 4, Girls B.O : 10

6. KINDERGARDEN " NEVEN"

Number of children: 125, Checkuped: 93

No deformity: 37, With deformity: 56

PES PLANI	16
PES PLANO VALGUS	30
PES VALGUS	10
B.O.	37
PES EXCAVATUM	/

Boys: 54, Boys deformity: 35

Girls: 39, Girls deformity: 21

Boys B.O : 19, Girls B.O : 18

7. KINDERGARDEN "PEPELJUGA"

Number of children: 109, Checkuped: 90

No deformity: 30, With deformity: 60

PES PLANI	7
PES PLANO VALGUS	30
PES VALGUS	23
B.O.	30
PES EXCAVATUM	/

Boys: 49, Boys deformity: 40

Girls: 41, Girls deformity: 20

Boys B.O : 9, Girls B.O : 21

8. KINDERGARDEN "PINOKIO"

Number of children: 29, Checkuped: 21

No deformity: 9, With deformity: 12

PES PLANI	3
PES PLANO VALGUS	7
PES VALGUS	2
B.O.	9
PES EXCAVATUM	/

Boys: 13, Boys deformity: 9

Girls: 8, Girls deformity: 3

Boys B.O : 4, Girls B.O : 5

9. KINDERGARDEN "ZVONÈLÆ"

Number of children: 107, Checkuped: 87

No deformity: 24, With deformity: 63

PES PLANI	8
PES PLANO VALGUS	41
PES VALGUS	14
B.O.	24
PES EXCAVATUM	/

Boys: 33, Boys deformity: 26

Girls: 54, Girls deformity: 37

Boys B.O : 7, Girls B.O : 17

10. KINDERGARDEN "SVITAC"

Number of children: 97, Checkuped: 76

No deformity: 40, With deformity: 36

PES PLANI	13
PES PLANO VALGUS	22
PES VALGUS	1
B.O.	40
PES EXCAVATUM	/

Boys: 37, Boys deformity: 23

Girls: 39, Girls deformity: 13

Boys B.O : 14, Girls B.O : 26

11. KINDERGARDEN "MASLAĀAK"

Number of children: 124, Checkuped: 94

No deformity: 44, With deformity: 50

PES PLANI	16
PES PLANO VALGUS	29
PES VALGUS	5
B.O.	44
PES EXCAVATUM	/

Boys: 54, Boys deformity: 29

Girls: 40, Girls deformity: 21

Boys B.O : 25, Girls B.O : 19

12. KINDERGARDEN "CRVENKAPA"

Number of children: 114, Checkuped: 84

No deformity: 45, With deformity: 39

PES PLANI	11
PES PLANO VALGUS	16
PES VALGUS	12
B.O.	45
PES EXCAVATUM	/

Boys: 38, Boys deformity: 18

Girls: 46, Girls deformity: 21

Boys B.O : 20, Girls B.O : 25

13. KINDERGARDEN "KOLIBRI"

Number of children: 114, Checkuped: 87

No deformity: 29, With deformity : 58

PES PLANI	14
PES PLANO VALGUS	43
PES VALGUS	1
B.O.	29
PES EXCAVATUM	/

Boys: 53, Boys deformity: 38

Girls: 34, Girls deformity: 20

Boys B.O : 15, Girls B.O : 14

14. KINDERGARDEN "CVRĀAK"

Number of children: 99, Checkuped: 79

No deformity: 33, With deformity: 46

PES PLANI	4
PES PLANO VALGUS	33
PES VALGUS	9
B.O.	33
PES EXCAVATUM	/

Boys: 39, Boys deformity: 29

Girls: 40, Girls deformity: 17

Boys B.O : 10, Girls B.O : 23

15. KINDERGARDEN "PALĀĀ"

Number of children: 108, Checkuped: 81

No deformity: 28, With deformity: 53

PES PLANI	8
PES PLANO VALGUS	33
PES VALGUS	11
B.O.	28
PES EXCAVATUM	1

Boys: 37, Boys deformity: 29

Girls: 44, Girls deformity: 24

Boys B.O : 8, Girls B.O : 20

16. KINDERGARDEN "BAMBI"

Number of children: 125, Checkuped: 92

No deformity: 24, With deformity: 68

PES PLANI	8
PES PLANO VALGUS	35
PES VALGUS	23
B.O.	24
PES EXCAVATUM	2

Boys: 47, Boys deformity: 36

Girls: 45, Girls deformity: 39

Boys B.O : 11, Girls B.O : 13

17. KINDERGARDEN "LEPTIRIĀ"

Number of children: 117, Checkuped: 98

No deformity: 29, With deformity : 69

PES PLANI	15
PES PLANO VALGUS	38
PES VALGUS	16
B.O.	29
PES EXCAVATUM	/

Boys: 49, Boys deformity: 34

Girls: 49, Girls deformity: 35

Boys B.O : 15, Girls B.O : 14

18. KINDERGARDEN "BISER"

Number of children: 53, Checkuped: 38

No deformity: 11, With deformity: 27

PES PLANI	4
PES PLANO VALGUS	16
PES VALGUS	7
B.O.	11
PES EXCAVATUM	/

Boys: 20, Boys deformity: 18

Girls: 18, Girls deformity: 9

Boys B.O : 2, Girls B.O : 9

19. KINDERGARDEN "PETAR PAN"

Number of children: 73, Checkuped: 53

No deformity: 16, With deformity : 37

PES PLANI	11
PES PLANO VALGUS	24
PES VALGUS	2
B.O.	16
PES EXCAVATUM	/

Boys: 27, Boys deformity: 19

Girls: 26, Girls deformity: 18

Boys B.O : 8, Girls B.O : 8

FINAL RESULTS

Number of children: 1907, Checkuped: 1463

No deformity: 545, With deformity: 918

PES PLANI	225
PES PLANO VALGUS	534
PES VALGUS	156
B.O.	545
PES EXCAVATUM	3

Boys: 771, Boys deformity: 537

Girls: 692, Girls deformity: 381

Boys B.O : 234, Girls B.O : 311

RESULTS AND DISCUSSION

The achieved results were presented for each kindergarten separately, including the total number of 19 kindergartens with children of both sex, and the summary report was also given.

Based on the obtained results, it can be concluded that a large number of children has a certain degree of postural disorder of the foot arch, as well as foot deformity. Namely, the data show that 62,74% of children have some of foot deformities. There are 36,5% of children with Pes plano-valgus, which is characterized by loosening of musculature in a higher extent, but there are also changes in ligaments. Pes plani or flat foot, which is characterized by musculature loosening in a higher extent, is present in 15% of children. The percentage of children with pes valgus deformity, or the easiest form of flat foot, characterized by weakening and loosening of foot muscles, particularly those that hold the longitudinal arch, is 10,6%, while 0.2% of children has hollow foot, i.e. pes excavatum. The neat finds are found in 37% of children, which is, according to the author, a disconcerting fact.

A program of sports and recreation activities was made in cooperation with experts from the Institution dealing with physical education and coaches from Nis's sport clubs. Through one cycle within one year, children were involved in the following sports: rhythmic gymnastics, judo, tennis, basketball, handball, football, and athletics, ice-scating and skiing. Each club, in its sports and recreation activities, had a task to present the initial basic elements of the given sport and in this way, educate and inform children and parents. Each of the mentioned activities was presented during the four weeks, in two classes per week, in cooperation with expert associates of the Institution. A huge interest of children and parents was noticed, so the project resulted in mass involvement of children in clubs, with which the cooperation was made.

Through the mass animation of children of this age, lots of goals have been achieved, out of which the most important one has been highlighted. It is a tendency to prevent negative influences on children development, which appear as a consequence of the modern way of living, those that relate to the body development itself, as well as those that relate to formation and improvement of motoric abilities. In this period of growing, a spinal column

as a base of proper growth and development has been particularly endangered. It is a period of the proper formation of the spinal column curves, so the increased, properly dosed and adequate physical activity is a perfect mean for prevention of negative influences on the proper growth and development of children. Furthermore, a health component must not be neglected, which is reflected in strengthening children's health and creation of resistance to various diseases.

A significant influence was made on the development and improvement of basic motoric abilities (speed, coordination, endurance, mobility, precision, balance and strength). Educational component was also satisfied in children socialization through cooperation, association and development of sense for team work. Furthermore, the children gained new knowledge and some skills through the range of various body activities they have needed, for later update of sports and technical knowledge and skills, as well as for the everyday life and work.

CONCLUSION

The adequate programs of physical exercises influence the body status of children as preventive and corrective means.

Special attention should be paid to the basic means of prevention and correction, i.e. the motion. As has already been mentioned, the prevention in such cases is of great importance and, if all necessary measures are taken on time, usually the heavier forms of body deformity do not appear at all. Since these changes on foot are mainly in the initial stage, a specially chosen set of exercises can very successfully fight this deformity, and in a majority of cases its further development could be prevented. It is an ideal opportunity for expert associates in physical education and teachers in pre-school institutions, even under very modest conditions, to perform preventive exercises, the aim of which is strengthening of foot musculature. The cooperation with parents is especially important, in the sense of explaining the importance of the exercises application. Emphasizing practicing at home, in order to achieve even better results, is also very significant. This project continues to develop.

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Correnspondence:
Jadranka Kocić
University of Priština
Faculty of Sport and Physical Education
Dositej Obradović b b,
38218 Leposavić, Kosovo-Metohija, Srbija
E - mail: mala@sbb.rs

ТРАНСФОРМАЦИЈА НА СОСТОЈБАТА НА СТАПАЛАТА СО ПРИМЕНА НА РЕКРЕАТИВНИ ВЕЖБИ КАЈ ДЕЦАТА ОД ПРЕДУЧИЛИШНАТА ВОЗРАСТ ОД УСТАНОВАТА „ПЧЕЛИЦА“ ВО НИШ - СРБИЈА

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(Сѝручен ѝруд)

Јадранка Коциќ¹, Зоран Јониќ² и Мирјана Петровиќ²

¹Универзитетѝ во Приштина, Факултетѝ за спорѝ и физичко воспитување, Србија (Косово и Метохија), Србија

²Предшколска установа „Пчелица“, Ниш, Србија

Апстракт

Испражувањето е извршено во 19 деѝски градинки на 1463 деца на возрастѝ од 5-6 години. Со цел да се уѝврди степенот на деформиранието на стапалата, ѝред сѝ, е користена методата на инсекција. За ѝоѝрецизно одредување на развојното степен на деформацијата земен е оѝисок на стапалата (ѝланиограм). Во Септември, 2010 година од Диспанзерот за медицина на споротѝ во Ниш и сѝручните соработници за физичко воспитување на ѝредучилишната установа „Пчелица“ во Ниш, е реализиран Систематски ѝреглед според методата IBM на ѝрограмата за мерење на стапалата. Заклучено е дека има голем број деца со некое ѝосѝурално нарушување или со некој деформиранието, на ѝто укажа ѝодаѝокоѝ од 67%.

Клучни зборови: *метода на инсекција, ѝланиограм, ѝелесен стаѝус, моторни способности*