

E.I. Kusainova, A.K. Tekmanova, A.A. Orynbaeva, S.N. Biltayeva, M.Y. Makhashov,
N.E. Amantai, K.K. Basygara, T.N. Perne, A.I. Imankul
Asfendiyarov Kazakh National medical university, Almaty, Kazakhstan

INFLUENCE OF SOME SOCIAL-HYGIENIC FACTORS TO PHYSICAL EFFICACY AND STATE OF HEALTH OF SPORTSMEN AND NOT SPORTSMEN PUPILS

The physical efficiency and health of schoolchildren are largely determined by the influence of socio-hygienic factors. It is shown that the regime of the day of students is often violated. With high emotional and mental stress, children are acutely affected by deficit in active motor activity. There is a strong correlation between the physical working capacity and the state of health of schoolchildren with the level of their motor activity. Young athletes have a rumblings of musculoskeletal function, refractive anomalies occur significantly less frequently than in schoolchildren engaged in active motor activity.

Keywords: children and adolescents, physical inactivity, physical inactivity, state of health

Introduction. Physical efficacy and state of health of pupils notably foreordains of influence of social-hygienic factors. Showing that regime of day of pupils often is disturbed. Children feels tangy deficit in active locomotors life when they have very high emotional and intellectual burden.

Materials and methods. We were exploring ascendant of social-hygienic factors to physical developing, to physical efficacy and to state of health of 10-17 age children when it was longitudinal observing.

Results and discussion. At social position of father 71,5% from schoolchildren enter to group of worker, 27,5%-employee, at social position of mother 56,9%- group of worker, 40,6%-employee. Social position of major of families were high: 90,5% had own apartment. Regime of alimentation of all pupils was adequate; more 90% got dinner at school.

There were some infractionsin regime of pupils' day. Continuance of sleep was normal just at part of pupils. At rest pupils it was 2-3 less. Time in outside fluctuated from 1 to 4-5 hours, with at ¼ all ages groups pupils was less than stated hygienic norms. So, 21,96% of small-school group of children were outside 1 hour instead 4-5 h. Deficit of being outside of medi- or high group pupils everyday fluctuations from 1 to 3h.

Table 1 - Pupils, who do sports, were outside more than pupils of control groups

Time in outside	Kids group				Middle-group				High-group			
	sportsmen		not sportsmen		sportsmen		not sportsmen		sportsmen		not sportsmen	
	Abs.	%	Abs.	%	abs	%	abs	%	abs	%	abs	%
Boys												
1	36	21,9	8	7,40	48	15,0	8	5,71	12	6,97	4	7,96
2-3	92	56,0	48	44,44	180	56,2	76	54,2	10	60,4	3	61,5
4-5	36	9	52	48,16	92	5	56	8	4	6	2	3
		22,8				28,7		40,0	56	32,8	1	30,7
		5				5		1	6	6	8	
total	164	100,0	10	100,0	130	100,0	140	100,0	17	100,0	5	100,0
Girls												
1	84	34,4	60	30,00	56	25,0	132	30,3	4	10,0	44	22,9
2-3	136	2	10	50,00	152	67,8	280	7	28	0	11	1
4-5	24	55,7	0	20,0	16	5	24	64,2	8	70,0	2	58,3
		3	40			7,15		2	0	36	3	
		9,85						5,51	20,0	18,7	6	
total	244	100,0	20	100,0	224	100,0	136	100,0	40	100,0	19	100,0

Pupils spend 2-3h of day to do homework, watching TV and so they do not have enough time to walk. Pupils-sportsmen spend 5-6h to sport else (25% of boys and 29% of girls). Just 7,3% young sportsmen and 11,1% kids without sport spend 1h to do homework (in hygienic norms). Other pupils spend more time to do homework than needful, and girls spend more time than boys.

Locomotors regime of major pupils are not enough to satisfy biological needs of acts. Next to half of pupils (43,6%) do not do sport and do not do morning hygienic exercises. Locomotors activity reduces over school year. In kid-school physculture pauses is 48,9%, in high-school is just 23,5%.

Definition of join between factors and physical developing of pupils from Pirson canon showing that it is right to pertaining to one important thing of social welfare- size of residential area to 1 person of family. In family, where it is less than 7m² on 1 person, more find child with low physical developing (0% hypothesis is less then 1%). Statistical right turn up join between number of child in family and low physical developing. There are less children with low physical developing in family who has big profit. However this join not right on statistics (possibly 0% hypothesis is more 5%).

Table 2

Social-hygienic factors	Medial physical development			low physical development		
	Kids group	Middle-group	High-group	Kids group	Middle-group	High-group
size of residential area to 1 person of family, m²						
before 7	98,8	96,5	94,7	1,2	3,5	5,3
7-8	96,5	97,8	97,9	3,4	2,2	2,1
9 and more	97,3	98,9	98,0	2,4	1,1	2,0
Number of children						
1	98,3	97,9	97,7	1,7	2,1	2,3
2-3	95,8	96,3	96,9	4,2	3,7	3,1
4 and more	94,7	95,1	94,5	5,3	4,9	5,5

Table 3

Time in outside	healthful		Short-sighted		Destroy of attitude	
	abs	%	abs	%	abs	%
Pupils-sportsmen						
1	204	87,9	8	3,4	20	8,7
2-3	525	89,7	29	4,3	39	6,0
4 and more	268	92,7	10	3,4	11	3,9
total	1067	90,1	47	3,9	70	6,0
Not do sport						
1	159	62,1	22	8,5	75	29,4
2-3	504	77,7	63	9,7	81	12,6
4 and more	190	84,8	14	6,2	20	9,0
Total	853	75,6	99	8,7	176	15,7

Periodicity destroy and illness of locomotors apparatus, attitude defects, destroy of eye is join with physical exercises. Pupils which do not do sport and which spends 4 hours and more to homework in 16,5% find anomaly of tret, 16,3% - destroy attitude. They have 0% hypothesis - 5%, but children who do not do sport - less 0,2%. Less pupils spend time outside, more they have destroy of locomotors systems and eye. This join is statically right, 0% hypothesis is less 0,01%.

Pupils, who do sport has less destroy of locomotors systems then pupils who do not do it. Results of correlation analysis showed that alimentation regime and physical development have right correlation join ($r=0,48$, determination coefficient 23%). There is tight join between physical efficacy and mothers busyness in production sphere ($r=0,37$, determination coefficient 37%). Join like that is between pupils sleep time and physical efficacy ($r=0,31$, determination coefficient 38%). Morning hygienic gymnastic influence to physical efficacy ($r=0,47$, determination coefficient 25%).

Complex of influence of all hygienic-social factors to young sportsmen's physical efficacy characterizes by high correlation coefficient 0,74, part of that is 55%, correct results is 99%. More influence to physical efficacy is locomotors activity ($r=0,60$), have hygienic regime of day, include to be outside ($r=0,31$), and continuance of sleeping ($r=0,37$).

Low active life influence to state of health: time which spending to watch TV, prepare homework, school time, reading and anything like this ($r=-0,51$), time at outside ($r=0,47$), correct alimentation regime ($r=0,38$).

Conclusion. 1. Correct hygienic regime of day connects with physical efficacy index and state of pupils health. To be outside is more important hygienic thing.

2. Low active life influences to state of health ($r=-0,51$), time at outside ($r=0,47$), correct alimentation regime ($r=0,38$).

3. More influence to physical efficacy is locomotors activity ($r=0,60$). Pupils, who do sport has less destroy of locomotors systems then pupils who do not do it.

REFERENCES

- 1 Grigoryeva O.N. The state of health of children of secondary school age in connection with the condition of education and life. – M.: 1989. – 364 p.
- 2 Baranov A.A. Tasks of pediatric science on the protection of children's health // Bulletin of the Russian Academy of Medical Sciences. - 2003. - №8. - P. 3-6.
- 3 Krupitskaya L.I., Fomin N.A. Influence of some socio-hygienic factors on the physical working capacity and health status of schoolchildren engaged in and not involved in sports // Hygiene and Sanitation. - 1986. - №9. - P. 28-30.
- 4 Kuchma V.R., Yamshchikova N.L. Theory and practice of hygiene of children and adolescents // Mediko-prophylactic delo. - 2000. - №6. - P.11-14.

**Э.И.Кусайынова, А.К. Текманова, А.А.Орынбаева, С.Н.Бильтаева, М.Ы Махашов,
Н.Е. Амантай, К.Қ. Басығара, Т.Н. Перне, А.Қ.Иманқұл**

КЕЙБІР ӘЛЕУМЕТТІК-ГИГИЕНАЛЫҚ ФАКТОРЛАРДЫҢ СПОРТПЕН БЕЛСЕНДІ ТҮРДЕ АЙНАЛЫСАТЫН ЖӘНЕ АЙНАЛЫСПАЙТЫН ОҚУШЫЛАРДЫҢ ДЕНСАУЛЫҚ ЖАҒДАЙЫНА ӘСЕРІ

Түйін: Мектеп оқушыларының денсаулық жағдайы мен физикалық жұмыс қабілеттілігі көп жағдайда әлеуметтік-гигиеналық факторлардың әсеріне байланысты болып жатады. Көп жағдайда оқушылардың күн тәртібі жиі бұзылады. Жоғары деңгейде эмоционалды және оқу ойлау жүктемесі бойынша түскен ауыртпашылық балалардың жедел түрде белсенді қозғалысының төмендеуіне әкеліп соғады. Физикалық еңбек қабілеттілігі мен мектеп оқушыларының денсаулық жағдайының арасында белсенді қозғалыс деңгейімен тығыз байланыстылық бар. Белсенді қимыл қозғалысымен айналыспайтын оқушыларға қарағанда жасөспірім спортпен айналысатындар арасында тірек-қимыл жүйесінің ауытқуларымен, рефракция аномалиялары өте аз кездеседі.

Түйінді сөздер: балалар мен жасөспірімдер, гиподинамия, физикалық еңбек қабілеттілігі, денсаулық жағдайы

**Э.И.Кусайынова, А.К. Текманова, С.Н.Бильтаева, М.Ы Махашов, Н.Е. Амантай,
К.Қ. Басығара, Т.Н. Перне, А.Қ.Иманқұл**

ВЛИЯНИЕ НЕКОТОРЫХ СОЦИАЛЬНО-ГИГИЕНИЧЕСКИХ ФАКТОРОВ НА ФИЗИЧЕСКУЮ РАБОТОСПОСОБНОСТЬ И СОСТОЯНИЕ ЗДОРОВЬЯ ШКОЛЬНИКОВ, ЗАНИМАЮЩИХСЯ И НЕ ЗАНИМАЮЩИХСЯ СПОРТОМ

Резюме: Физическая работоспособность и состояние здоровья школьников в значительной мере предопределяются влиянием социально-гигиенических факторов. Показано что режим дня учащихся часто нарушается. При высоких эмоциональных и умственных нагрузках дети остро испытывают дефицит в активной двигательной деятельности. Существует сильная корреляционная связь физической работоспособности и состояния здоровья школьников с уровнем их двигательной активности. У юных спортсменов растроиства опорно-двигательной функции, аномалии рефракции встечаюся достоверно реже, чем у школьников на занимающихся активной двигательной деятельностью.

Ключевые слова: дети и подростки, гиподинамия, физическая работоспособность, состояние здоровья