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Assessment of knowledge about body postural defects among parents

Ocena wiedzy na temat wad postawy ciała wśród rodziców

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Słowa kluczowe: wady postawy, zapobieganie, wiedza

Key words: body postural, prevention, knowledge

Abstract:

Introduction: Postural defects became in recent decades significant problem, both medical and social. Many examinations show that faulty posture affect about 60-80 per cent of children. The rapid development of technology has led to limiting of physical activity which manifests itself by massive occurrence of faulty posture. Therefore it is extremely important to increase the

parents knowledge and awareness of the prevention and correction of faulty posture as well as benefit from physical activity.

Aim: The aim of the present study was estimation parents knowledge about faulty posture and verification who knows more – parents who have children with correct posture or these who have children with postural defects as well as parents who encourage children to exercise or these who don't do this.

Materials and methods: A survey was conducted in a group of 60 parents. First group: 30 parents of children attending The Postural Defect Clinic, second group: 30 parents of children attending School Complex No. 8 in Bydgoszcz. The original questionnaire was used for the study. Questionnaire to the estimation of parents knowledge consisted of 19 questions: metric questions and knowledge test. The results were analyzed statistically ($p<0,05$).

Results: Parents who enroll children for extra sports are more knowledgeable than parents who do not. Parents whose children have postural problems have no higher knowledge than parents whose children have a correct posture. Parents with higher education have more knowledge about posture defects.

Conclusion: Parents knowledge on the prevention and correction of faulty posture is sufficient (mean: 56 per cent correct answers). Nowadays, knowledge should be at a higher level by looking at the frequency of postural defects.

Introduction

Posture are increasingly emerging diseases in children. According to statistics posture has about 60 - 80% of children [7,8,9]. So this is a common problem, and observing the development of civilization can be expected that it will have on growth trends [7]. A major change in lifestyle that has taken place over the last few decades, and which has a substantial impact on shaping the attitudes of the body, it is to limit physical activity. These transformations have a particularly adverse effect on the child's body, which is developing into an extremely sensitive to any stimuli [1-7].

There are many factors that influence the formation of the body posture, both endogenous and exogenous. However, one of the most important seems to be the parents' knowledge and awareness on the prevention and correction of posture [9].

The family is the primary educational environment of the child. This is where the young human learns the basic principles of social functioning, learns behavior patterns, shapes personality.

Parents watching a child assimilates the habits and customs practiced in the home, including those that relate to care for their own health, body, physical and mental. A young person, who is brought up in a physically active family, will be more likely to participate in physical education classes or additional sports activities [9,11,12]. It is also important that it is the parents who are provided with the relevant knowledge who are able to modify the child's environment so that it is friendly to his health and proper development. It is extremely important that parents furnish their child's room accordingly, providing him with ergonomic work and leisure conditions, and also pay attention to what position he is doing his homework or watching TV.[7]

"The attitude of the human body is an expression of his physical and mental state" [10]."The disadvantage of posture is the change in an upright, relaxed position of the body, which is definitely different from the conformations typical for a given gender, age, constitutional structure and race.Posture defects are the result of pathological changes and can occur in all planes of the body: sagittal, frontal and horizontal. Posture defects manifest themselves mainly in the change of the shape of the spine and body sections directly related to it. "[13]

Unrecognized or untreated body posture defect can result in many consequences, such as: pain, muscular dysfunctions, failure in learning, worse results in sports competition with peers, not accepting your own body, limited access to some professions. [7,9,14,15,]

That is why it is so important for the child to be provided with the right conditions: learning, rest, and also to have the correct patterns of pro-health behaviors from the family home. [7,9,11,16].

The aim of the study was to assess parents' knowledge about body posture and their prevention. The following hypotheses were specified:

1. Parents' knowledge of posture defects is insufficient.
2. Parents whose children have faulty postures have higher knowledge than those whose children have the correct posture.
3. Parents who encourage children to engage in physical activity (by registering children for additional sports activities or doing physical activities) have a higher knowledge than parents who do not encourage children to play sports.
4. The education of parents affects the level of knowledge about posture defects.

Materials and methods

A survey was conducted in a group of 60 parents. First group: 30 parents of children attending The Postural Defect Clinic, second group: 30 parents of children attending School Complex No. 8 in Bydgoszcz. The original questionnaire was used for the study. Questionnaire to the estimation of parents knowledge consisted of 19 questions: metric questions and knowledge test.

We rated the assessment of the test by adding the number of correct answers given to questions from 10 to 18. For each correct answer, you could get 1 point.The results were analyzed statistically ($p<0,05$). We used the following scale to assess knowledge:

85-100% - knowledge at a very good level

65-84.9% - knowledge at a good level

45- 64.9% - knowledge at a sufficient level

Less than 45% - knowledge at an insufficient level

Results

The majority of the respondents were women (85%), and the remaining 15% were men. The question about the definition of scoliosis was one of the most problematic questions for parents. Only 18.33% of the respondents knew that scoliosis is a multifaceted deviation of the spinal axis from the normal state, in which one of the features is the lateral curvature of the spine.Most of the parents (55%) indicated that scoliosis is only a lateral curvature of the spine, 15% of respondents answered that scoliosis is synonymous with round backs, and 11.67% admitted that they do not know what scoliosis is.

1stHypothesis: Parents' knowledge of posture defects is insufficient.Among 60 respondents, the average result obtained is 56% (+ - 21.17).The minimum score is 0% and the maximum is 100%.According to the scale, we need to assess parents' knowledge at a sufficient level.

Tab. 1 The mean percentage score achieved by all parents.

	N	Min	Max	Mean	SD
Percentage score	60	0.00	100.00	56,00	21.17

2nd Hypothesis: Parents whose children have faulty postures have higher knowledge than those whose children have the correct posture.

Tab.2 The average percentage result obtained by parents in which the child was / was not found to have a postural defect.

Has your child been diagnosed with a faulty posture?		N	Mean	SD	SE
%	Yes	30	57.16	18.92	3.45
	No	30	54.83	23.46	4.28

The groups of parents are equal (30 people each). The average result achieved by people whose children have postural defects is 57.17 (+ - 18.92), while among parents of healthy children it is 54.83 (+ -23.47).

Tab. 2 Levene's test of homogeneity of variance test for equality of means 2nd hypothesis.

	Levene's test of homogeneity of variance		Equality of means t test		
%	F	The significance	t	df	The significance of (bilateral)
	1.55	0.22	0.42	58.00	0.67

Levene's test homogeneity of variance ordered to accept the null hypothesis of equality of variance between groups before treatment ($p > 0.05$). The t-test showed that the differences between means are not statistically significant ($p > 0.05$). It can be argued that parents whose children have postural defects have no knowledge higher than parents whose children have a correct posture.

3rd Hypothesis: Parents who encourage children to engage in physical activity (by registering children for additional sports activities or doing physical activities) have a higher knowledge than parents who do not encourage children to play sports.

Tab. 3 Average percentage obtained by parents who do or do not engage in physical activity with their child.

Do you engage in physical activity with your child?		N	Mean	SD	SE
%	Yes	23	66.96	18.45	3.85
	No	37	49.19	20,05	3.30

Among the parents surveyed, 37 people do not engage in physical activity with children, while the remaining 23 people do. The average percentage result obtained by this first group is 66.95% (+ 18.45) and in the second group 49.19% (+ -20.05).

Tab. 4 Levene's test of homogeneity of variance test for equality of means 3rd hypothesis (the practice of physical activity with a child).

	Levene's test of homogeneity of variance		Equality of means t test		
%	F	The significance	t	df	The significance of (bilateral)
	0.32	0.57	3.44	58.00	0.00

Levene's test homogeneity of variance ordered to accept the null hypothesis of equality of variance between groups before treatment ($p > 0.05$) therefore, you can test the equality of means. the t-test showed that the differences between means are statistically significant ($p < 0.05$). It can be argued that parents who engage in physical activity with children have higher knowledge than parents who do not.

Tab. 5 The mean percentage score obtained by parents who enroll / not enroll additional children in sports activities.

Do you enroll your child for additional sports activities?		N	Mean	SD	SE
%	Yes	27	67.96	13.53	2.60
	No	33	46,21	21.39	3.72

Among the surveyed parents, 27 people enroll children for additional sports activities, while the remaining 33 do not. The average percentage result obtained by this first group is 67.96% (+ -13.53) while in the second group 46.21% (+ -21.39).

Tab. 6 Levene's test of homogeneity of variance test for equality of means 3rd hypothesis (save for additional sports activities).

	Levene's test of homogeneity of variance		Equality of means t test		
%	F	The significance	t	df	The significance of (bilateral)
	4,76	0.03	4,58	58	0,00

Levene's homogeneity test of variance ordered to reject the null hypothesis about the equality of variances between groups before therapy ($p > 0.05$), the test of equality of means for groups with different variances should be performed. The t-test showed that the differences between means are statistically significant ($p < 0.05$).

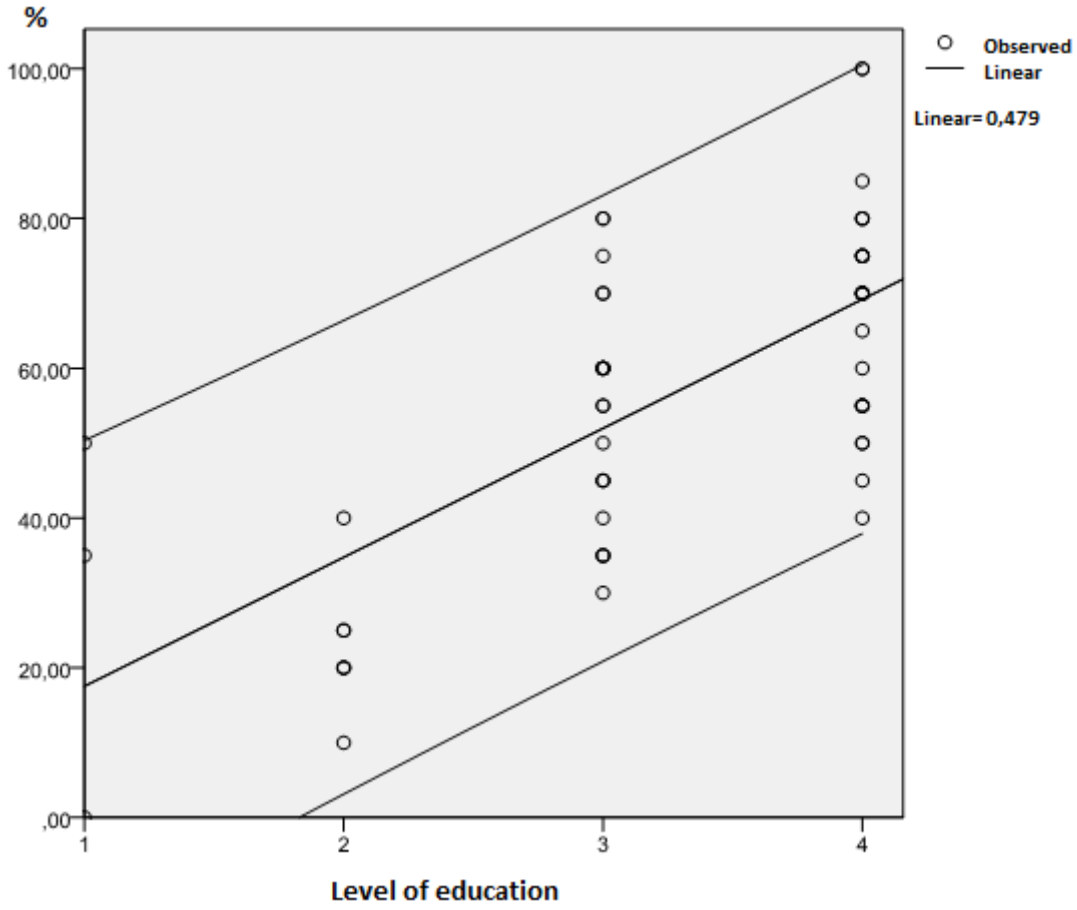
It can be concluded that parents who register children for additional sports activities have higher knowledge than parents who do not.

4thHypothesis: The education of parents affects the level of knowledge about posture defects.

Tab. 7 Pearson Correlation for the 4th hypothesis.

		Percentagescore
Education	Pearson correlation	0.64
	The significance of (bilateral)	0.00
	N	60.00

Statistical analysis showed a significant correlation between education and the obtained percentage result. This is a strong correlation. The higher education, the higher the knowledge about posture defects. This dependence is illustrated by the graph below.



Dig. 1 The correlation between education and obtained the result of percentage [own archive]

Discussion

It seems positive that as much as 98.33% of parents believe that physical activity positively influences the shaping of body posture. However, only 55% of respondents declare that they enroll their children for additional sports activities. Whereas 61.67% of respondents encourage their children to participate in physical activity. The results of Jankowicz-Szymańska et al. showed slightly higher results, as 79.38% of parents declared that they encouraged their children to spend time together in an active way. The most common forms of activities that parents choose, both in the studies of the above authors and our study are: cycling, swimming and walking. [17]

Our research has shown that parents for the most common cause of postural defects indicate unilateral body loading (56 people), slightly less, because 51 people chose a long-term, incorrect position, the third most frequently chosen answer was wearing heavy objects (39 people).The results were similarly obtained in Nowotny-Czupryna et al. In their research, the most frequently mentioned situations that the child should avoid were lifting heavy objects, carrying a bag on one arm and staying in one position for a long time. Few people knew that

the sight or hearing defect, skipping the period of crawling or overfeeding a child can also contribute to a defect in posture. [20,21]

49 people reported that they obtained their knowledge in the field of postural defects from the doctor, in the next places there was the Internet and the media (27 people each), so as in the studies of other authors (Jankowicz-Szymańska et al., Olech et al.). [17,20,26]

According to the research by Nowotna-Czupryna et al., There is no relation between the state of parents' knowledge and the length of the child's attendance period for corrective classes. The general level of knowledge of parents of children attending corrective classes was assessed as unsatisfactory. According to our research, there are also no major differences between the level of knowledge of parents, whose children do not have postural defects (54.83%) and parents whose children have a faulty posture (57.16%). It is worrying that parents whose children have a faulty posture do not try to explore knowledge about their causes and the possibility of correction. [20,26,27]

According to studies by Stokowska et al., The higher level of parents' education, the greater the involvement in conservative treatment of the child. Our research indicates a significant correlation between the level of education and the state of knowledge about posture defects. The higher the level of education, the more knowledge. [7]

Among 60 respondents, the average percentage of correct answers is 56%. Very similar results were obtained by Widłak et al. These authors assessed the parent’s knowledge of the rural and urban environment about posture defects.In their study, respondents from the urban environment marked 52.82% of correct answers, and from the rural environment 47.33%. According to the scale adopted, such knowledge is shaped at a sufficient level.However, if we look at the results through the prism of children's health, then this is still too little knowledge. The role of parents is extremely important here because they are the primary educational environment for their children and they shape the views, habits and behaviors that their children will bring into adult life. Thus, only a conscious and knowledgeable parent can be fully responsible for the proper development of their child, and in the event of any irregularities, can efficiently capture and correct them. [9,15,21]

Conclusion

1. Parents' knowledge of postural defects is at a sufficient level (56% of correct answers).
2. Knowledge of parents of children with a defect posture (57.17%) is comparable to that of parents of children with a correct posture (54.83%).

3. Parents who encourage children to engage in physical activity, by registering children for extra sports or doing physical activities, have a higher knowledge of postural disadvantages than parents who do not activate children.
4. The level of education affects the level of knowledge about posture defects. The highereducation, the more knowledge.

Nowadays, knowledge should be at a higher level by looking at the frequency of postural defects.

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