

medical-biological problems of physical training and sports

#### LEVEL OF SCHOOL ANXIETY OF GIRLS AGED 12-13 YEARS OLD WITH DIFFERENT KINDS OF POSTURAL

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**Annotation.** <u>Purpose</u>: to identify the level of school anxiety of girls with signs of normal, round-shouldered, lardotic, kyphotic and straightened by the types of carriages during a school year. <u>Material</u>: the study involved 137 girls 12-13 years old. Was held diagnostics level of school anxiety Phillips. <u>Results</u>: It was found that girls with normal posture there is a general anxiety in school, fear of the situation knowledge test. With stooping - frustration needs to succeed, fear of self-expression. With lardotic - frustration needs to succeed, fear of self-expression. With kyphotic - general anxiety at school, frustration needs to succeed, fear not meet the expectations of others. With straight - manifestation of the general emotional state, negative attitudes and experience of anxiety in the situation knowledge test. <u>Conclusions</u>: factors of school anxiety have different effects on girls. It was established that during adolescence the need to integrate and correction of psychological state and the musculoskeletal system. This is due to the formation of morphological features, formation of character traits.

Keywords: school, anxiety, posture, girls, psychological.

## Introduction

Results of many researches show that just for teenagers the problem of external and internal manifestations of complex formation's process, both in character and in morphology of organism, is the most urgent as on the present moment [2, 6].

As per data of researchers [1, 7], interconnection of psychological manifestations with morphological features is expressed in individual specificities of a girl, i.e. in formation of posture, type of constitution as well as in adaptation potentials of organism.

Manifestation of girls' psychological and morphological specificities in adolescence age is, first of all expressed both by presence of school anxiety and by correct external shape of body, i.e. by posture, which underlines shape of backbone, position of head, girdle, angle of pelvis tilt, muscular condition [3, 5, 8, 9, 10].

In this connection, in our opinion, it is necessary to study level of school anxiety of 12-13 years old girls with different kinds of posture, especially in puberty period.

The research has been fulfilled in compliance with combined plan of scientific-research works in sphere of physical culture and sports for 2011-2015 of Ministry of Ukraine on family, youth and sports by topic 3.8:"Theoreticalmethodic principles of construction of mass control system, evaluation of physical fitness of different population strata" state registration number 0113U001206).

## Purpose, tasks of the work, material and methods

*The purpose of the work is:* to determine the level of school anxiety of 12-13 years old girls with symptoms of normal, slouchy, "lord" type, kyphotic and straighten posture during academic year.

The tasks of the work: determination of school anxiety factors, intrinsic to different kinds of posture.

*The methods of the research:* analysis of scientific-methodic literature, method of somatoscope (evaluation of posture by position of girdle, blades in respect to central plane, of pelvic bone's ridge points); psychological (diagnostic of school anxiety by Phillips); methods of mathematical statistics. In the research 137 of 12-13 years old girls participated and it was conducted at the beginning of academic year (in September) and at the end (in May).

### **Results of the research**

Deviations from normal posture are usually called abnormalities or defects of posture 10, 14. 15], which are connected with functional changes of supporting motor system, with which there appear wrong conditional reflexes, fixing wrong body position ad resulting in loss of correct posture. That is why abnormality of posture is not a disease; it is a state, which, with timely started health related measures, dies not progress and is a reversible process [12].

With it, disordering of posture can gradually lead to reduction of mobility of chest, diaphragm, to worsening of backbone's spring function that, in its turn, can negatively influence on central nervous, cardio and respiratory systems; it becomes the source of many chronic diseases owing to general functional weakness, imbalance of muscles and ligament system [11, 15].

The fulfilled somatoscope researches showed that at the beginning of academic year 43% (59 girls) of 12-13 years old had normal posture, 17% (23 girls) – slouchy posture, 16% (22) had "lord" type posture, 15% - kyphotic and 9% - straighten (see fig.1).

Besides, we conducted psychological testing of school anxiety level, which consisted of 58 questions, requiring simple answers "Yeas" or "No".

With processing the results of this test we determined that at the beginning of experiment 17 % of answers of girls with normal posture demonstrated factor of general school anxiety, 9% - showed feeling of social stress, 4% - frustration of demand in success, 17% showed fear of self-expression, 14% - fear of situations, connected with testing

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of knowledge, 13% demonstrated fear" not to comply with expectations of surrounding people", 11% showed low resistance to stresses, 15% had problems in relations with teachers (see fig.2).



*Fig.1. Kinds of postures of 12-13 years old girls at the beginning and at the end of academic year (n=137)* 



Fig.2. Factors of school anxiety of girls with normal posture during academic year: 1 – general anxiety at school; 2 – feeling of social stress; 3 – frustration of demand in success; 4 – far of self-expression; 5 – fear of situation of testing knowledge; 6 – fear of not compliance with expectations of surrounding people; 7 – low physiological resistance to stress; 8 – problems and fears in relations with teachers.

At the end of academic year results changed and there happed increasing of general school anxiety – by 5%; feeling of social stress – by 1%; frustration of demand in success – by 2%; fear of testing of knowledge – by 7%; there happened reduction of fear of self-expression – by 3%; fear of not compliance with expectations of surrounding people – by 3%; low resistance to stresses – by 2% and problems in relations with teachers – by 7%.

At the end of academic year quantitative indicator of girls with normal posture reduced by 3 persons and was 59 as on the beginning of researches (see fig.3).

Quantitative indicator of girls with slouchy posture increased by the end of academic year and was 26 girls in respect to 23 at the beginning of the researches (see fig. 3). At the beginning and at the end of academic year in 36% and 47% and in 23% and 32 % of answers of girls with slouchy posture we found significant shifts in the following factors: frustration of demand in success and fear of self-expression accordingly (see fig.4).

As far as girls with "lord" type postures concern in 24 % - 29 % and 29% - 38 % we found changes in factor – frustration of demand in success and fear of self expression accordingly (see fig.5).

For girls with kyphotic postures we determined the following factors of school anxiety: general anxiety at school (17 % of answers); frustration of demand in success (11 %); fear of not compliance with expectations of surrounding people (36 %) (see fig. 6).

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Fig.3. Quantitative indicators of 12-13 years old girls with different kinds of postures during academic year (n=137)



Fig.4. Factors of school anxiety of girls with slouchy posture during academic year: 1-8 see table 2.



*Fig.5. Factors of school anxiety of girls with "lord" type postures during academic year (n=22): 1-8 see table 2* 

Among girls with straighten postures the following factors of school anxiety progressed: from 11 % to 14 % (general anxiety at school), from 21 % to 25 % (fear of testing knowledge), from 19 % to 21 % (fear of problems in relations with teachers) (see fig. 7).



*Fig.6. Factors of school anxiety of girls with kyphotic postures during academic year (n=21): 1-8 see table2* 



Fig7. Factors of school anxiety of girls with straightened postures during academic year (n=12): 1-8 see table 2.

Thus, the fulfilled research of school anxiety level by Phillips among 12-13 years old girls showed that in adolescence age, when morphology of organism is formed as well as features of character, it is necessary to conduct monitoring and correction of psychological state and condition of supporting motor system.

# **Conclusions:**

1. The researches demonstrated that at the beginning of academic year 59 (43 %) of girls had normal posture, 23 (17 %) slouchy, 22 (16 %) "lord" type posture, 21 (15 %) – kyphotic posture and 12 (9 %) –straightened posture, while at the end of academic year indicators changed and were: 56 (41 %) girls had normal posture 26 (19 %) – slouchy posture.

2. Diagnostic of school anxiety by Phillips showed that for girls with different kinds of posture manifestation of school anxiety factors is different during academic year. It was determined that for girls with normal posture general anxiety, showing emotional state with different forms of its manifestation in school is intrinsic; fear of testing knowledge. For girls with slouchy posture frustration of demands in success, which does not permit to achieve good result and fear of self expression, connected with necessity in self opening are most frequent. Girls with "lord" type of posture demonstrate frustration of demand in success, creating unfavorable psychological background and fear of self expression in front of surrounding people. Girls with kyphotic posture showed general anxiety at school, frustration of demand in success, hindering development demands in success and fear of not compliance with expectations of surrounding people, i.e. orientation on importance of opinion of surrounding people for evaluation of own results. For girls with straightened posture – manifestation of general emotional state and negative attitude, feeling of anxiety, connected with testing of knowledge, with relations with adult people are intrinsic.

In the future it is planned to study functional potentials of 12-13 years old girls, considering kinds of postures.

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