

## Study of Obesity in the Teenagers (Peculiarities of the Interpersonal Communication and Self-Esteem in Teenagers With Obesity)

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**Abstract.** In the paper the methodological aspects of the study of obesity in teenagers have been developed. In this paper the teen obesity is determined as a risk factor in terms of development of the cardiovascular diseases, diabetes, orthopedic issues and mental disorders. The teen obesity is related to the reduced performance and low self-esteem. The approach is substantiated that adolescent obesity results in both the short- and long-term adverse effects for the physical and psychosocial health of the teens. The study showed that the bigger the excess of the teen weight is the more expressed is the tendency to depression. The study shows that the level of the teen anxiety depends on the obesity level. The dynamics of obesity in children was shown which appeared to be much higher than in adults. It was substantiated in the study that the psychological defense in the obese teens may be implemented through the need for communication, need for the educational and social achievements. The necessity of development of measures on the psychological and social support of the obese teens is pointed out.

**Keywords:** Obesity, teenagers, obesity in teenagers, interpersonal communication, peculiarities of interpersonal communication of the obese teens.

### 1.Introduction

In the second half of the twentieth century in the developed countries the distribution of diseases among the population changed. A greater share was occupied by the diseases that are currently called the pathobolism diseases or non-communicable diseases including along with atherosclerosis and other cardiovascular diseases, diabetes mellitus, cholelithiasis, gout and other also obesity.

At the present stage the obesity issue increases significantly as the result of prevalence of this disease and due to the fact that the overweight causes the risk of development of various diseases.

Obesity increases the load on the organs and tissues, hinders the performance of the functional systems and increases the probability of development of various diseases including metabolic and cardiovascular diseases, liver and gallbladder diseases, joint pathologies, colorectal tumors. As a rule, obesity impacts the condition of the skin, hair, nails.

The number of the Earth population with overweight senior than 25 years makes 1,7 billion people. 250 million people from among this single

population have chronic obesity disease and the related frequent diseases. It was calculated that each third early death in the world is related to the diseases caused by obesity and physical passivism of a human. The rates of the obesity extension over the modern world allow suggesting that these figures will be doubled by 2025. Every 10 years the prevalence of the overweight and obesity increases by 10 %.

Special concerns are caused by the increase in the obesity prevalence among the teens. The teen obesity in many instances is the risk factor in terms of development of the cardiovascular diseases, diabetes, orthopedic issues and mental disorders. It is also related to the reduced performance and low self-esteem. The adolescent obesity results in both the short- and long-term adverse effects for the physical and psychosocial health.

The teen obesity is an essential predictor of the adult obesity. Metabolic and cardiovascular risk factors that became apparent in the childhood persist at the adult stage resulting in the increased risk of poor health and premature mortality.

The rationale is determined by the fact that

the self-perception promotes to the further whether conscious or unconscious establishment of behavior of the youth determining to a large extent the social adaptation of a teen personality and acting as a regulator of his behavior and activity. The children and teen obesity prolonged to the adult period features a severer progression accompanied by the expressed gain in the weight and incidence of deviations in the psychological development and growth of the related diseases as compared to the obesity with the first appearance at the adult age [1].

Generally, the review of the scientific literature shows the presence of an obvious gap in the comprehensive, in particular psycho-social studies involving the teenagers suffering from the overweight. The existing research papers (Igisinov, N. S. [1], Kopelman, Peter G.[2], Moonseong, H.[3], Dzhusipov, A. K., Abylayuly, Z. A., Shalkharova, Z. S., Oshakbayev, K. P. [4], Bessen, D.H.[5], Bessen, D., Kushner, R. [6], Berger, Kathleen Stassen [7], Kimm, S.Y., Obarzanek, E.[8], Han, J., Lawlor, D., Kimm [9], Berger, Kathleen Stassen [10]) do not allow getting the complete idea of the psycho-social issues of the specified risk group. The researchers play emphasis on the purely medical aspects thereof such as psycho-social effects as deprivation of this category, creation of social barriers on the way to socialization and social adaptation.

The adolescent self-perception is not stable; the researchers emphasize the leading role of the system of interpersonal relationships in the formation of self-perception and sense of identity.

The objective of the study was the evaluation of peculiarities of interpersonal; communication and adolescent self-esteem in teenagers suffering from obesity and establishing relationship between the mental features learnt and the overweight degree.

## 2. Methods

The methodological basis of the study included the social-science theories, social-psychological theories dealing with the processes of the socialization, mental formation, ways of learning the world, causes of possible mental

deviations in the teens; interactionist theories considering the development of the personality at the micro-social level where a human is affected mostly as the result of both the individual and collective interpretation of a situation which shall be taken into account by studying the perception of the world by the obese teens and analysis of behavior and mutual relations between the teens with overweight and normal weight.

For interpretation of the emotional-personal peculiarities of the obese teens the psychometric method of assessment of tension and anxiety realized was used.

Identifying the tendency to depression and communicative personality characteristics of a teen was performed with the use of depression and communication tests.

In order to assess the psycho-emotional status and autonomic disturbances of an obese teen the clinical-and-somatic questionnaire and psychometric testing was used.

**3. Main part.** Obesity and all the related issues become an ever-heavier economic burden for the society. In the developed countries of the world 8-10% of the annual expenditures for health care fall at the obesity therapy [3; 4].

The main factor causing the development of obesity is the energy imbalance consisting in the inconsistency between the energy intake and consumption. Obesity is most frequently developed as the result of overeating, however, it may appear because of the energy management failure. The role of the genetic-constitutional predisposition, reduced physical activity, age, gender, professional factors, particular physiological states is also apparent.

They distinguish alimentary-constitutional, hypothalamic and endocrine obesity. The alimentary-constitutional obesity is of the family nature, is developed, as a rule, as the result of systematic overeating, eating disorders, absence of the adequate physical activity, often in the members of the same family or immediate relatives. The hypothalamic obesity is developed as the result of the impairment of the hypothalamic functions and therefore has a number of clinical features. The endocrine obesity is one of the symptoms of the primary impairment of endocrine

glands: hypercorticism, hypothyroidism, and hypogonadism. However, all the obesity kinds suggest certain hypothalamic disorders that appear either primarily or in the course of the obesity development [5].

What promotes to the development of obesity?

1) Improper, unbalanced, excess nutrition. This means intake of an excess amount of the easily digested carbohydrates (sweets, starchy foods...) and fats (butter, fatty meat, bacon...) and insufficient intake of vitamins, essential minor elements and other vital nutrition components.

The essential component of the children nutrition includes minerals and vitamins that are necessary for the normal growth and development of the musculoskeletal, blood-forming and nervous tissues, regular metabolism behavior [6; 7].

2) Prevalence of the refined products in our diet. According to many nutritional specialists, during refinement many useful components are destroyed that are relevant for the regular metabolism behavior.

3) Sedentary lifestyle.

4) Limosis results in the excess intake of fatty food which in its turn causes obesity in people having a genetically low capability to oxidize (burn) fat. However, frequently limosis is caused not by the physiological needs of the body but by the stress reaction.

5) Obesity is also developed against impairment of some structures of the central nervous system. This may be related both to the infection and injury. A child may gain in weight also against impairment of the endocrine system (obese adolescent).

6) Obesity at an early age may be caused by a rather rare disease – adiposagenital syndrome. At the preschool age it is presented by whims, increased irritability and at the early school age – by the learning difficulties and by 12-13 years it may be presented as delayed puberty.

7) The overweight onset may also have psychological reasons. It is known that overeating as an etiological component of accumulation of the excess weight is the only way for such people to maintain their physical equilibrium [8; 9]. At the same time the only method of compensation of

negative emotions is the intake of food for pleasure [10].

As was shown by the recent national research in terms of obesity we quickly gain the developed countries. In 1995-96-s the overweight was typical for 42 % of the adult population of Kazakhstan, in 2008 – for 50,6, and in 2012 – for 55 % of the Kazakhstani. Among the citizens that are not just well-nourished but suffering from certain obesity degrees there are 27,6 % women and 15,9 % men.

The dynamics of obesity among children is much higher than among adults. For comparison: in 2005 the overweight was observed in 9 % of the Kazakhstan children and in 2012 – almost 22 % have overweight with a half of them already suffering from obesity.

As the result of diagnostics of the level of communicativeness in children suffering from obesity it was found that the coefficient of correlation between the increase in weight and communicativeness makes 0,62 which indicates the presence of the inverse correlation between the indicators considered, i. e., along with the growth of obesity the teens show lesser tending to communication.

The adolescent depression is a complex insidious and threatening phenomenon. Its complex nature is determined by a variety of causes and effects; insidious – since it can never be recognized until a tragedy happens; threatening since it may cause the worst things – from failures at school to suicide.

The study showed that the more overweight a teenager has the more expressed the tendency to depression is.

As the results of the study of the anxiety level in teenagers depending on the obesity degree show there is a slightly expressed inverse correlation between the specified indicators: - 0,40 (state anxiety) and -0,44 (trait anxiety), figures are presented in the Table 1. The inverse relation of the state anxiety to the overweight is more expressed in the girls (-0,61), and the trait anxiety – in the boys (-0,58). The girls are more sensitive to the defects of their appearance, more acutely react to the stressful situations, however, along with the increase in their weight they may become unsociable, lose interest in oneself and things

around, take the tasks assigned less responsibly. Boys with overweight tend to show absence of anxiety in order to hide their personal emotions and dependence on the appraisal by the neighborhood.

Table 1 – Indicators of the coefficient of correlation between the types of anxiety in the obese teens.

Type of anxiety	In the general group	In the group of girls	In the group of boys
State anxiety	-0,40	-0,61	-0,28
Trait anxiety	-0,44	-0,55	-0,58

The analysis of the anxiety indicators among the different weight groups shows that children with overweight have an increased level of anxiety – both state and trait one.

The trait anxiety means the stable personal characteristic representing the personality's predisposition to anxiety and suggesting presence of the tendency to take a quite wide range of situations as threatening responding to any of them through a certain reaction. The trait anxiety as a predisposition is activated by perception of certain stimuli estimated by a person as threatening to self-esteem, self-respect.

A certain level of anxiety is a natural and mandatory feature of an active person. Each person has the optimal or desired level of anxiety — the so-called effective anxiety. The estimation by a person of his state in this regard is an essential component of self-control and self-education.

High anxiety (> 46) among the teenagers may be directly related to the physiological state of obesity caused by the awkward age, may be related to the presence of a neurotic conflict, emotional breakdowns and psychosomatic diseases.

What stands out is the critically low indicators of the anxiety level (25,17 and 27,00) in the group of obese children. Low anxiety characterizes the state as depressive, inactive, with low level of motivations. Sometimes a very low anxiety in the test results is the result of the active repression by a person of the high anxiety to show oneself in the best light.

#### 4. Summary

The obesity issue in Kazakhstan is increasing rapidly and threatens to become a serious risk factor for health of the 55% of the state population.

Increase in the teens weight affects the peculiarities of interpersonal communication, the tendency to communication decreases along with increase in obesity, the coefficient of correlation between the gain in weight and communicativeness level makes -0,62.

The study of the level of adolescent depression depending on the obesity level gives evidence of the persistent direct correlation (correlation coefficient = 0,82) between the gain in weight and depression level.

Our suggestion as to the level of the state and trait anxiety did not find confirmation. We may observe a slightly expressed inverse correlation of the state (-0,40) and trait anxiety (-0,44) in teens depending on their weight. In the group of the obese children they have been specified the critically low indicators of the anxiety level (25,17 and 27,00) which suggests the presence of the depressive inactive state with a low level of motivation in teens of the mentioned group.

The effect of obesity on the communicative features, tendency to depression, level of anxiety is more pronounced in girls than in boys.

#### 5. Conclusions

The findings of the obesity analysis among teens allow us drawing the following conclusions:

- the psychological state of the obese teens depends on the opinion of the school and yard neighborhood;
- the psychological state of the obese teens is affected by the degree of satisfaction with the study and self-assessment of the social chances;
- the psychological defense of the obese teens may be implemented through the need for communication, need for the educational and social achievements;

- restrictions because of obesity are a stimulus forming in the obese teens the attitude to restoration of the normal weight;
- it is necessary to develop a set of measures on the psychological and social protection of the obese teens;
- it is necessary to develop measures on the psychological and social support of the obese teens that will comprehensively protect them and provide the missing life chances.

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