

## Materials of the Conferences

### HYGIENIC ANXIETY INDEX AS HEALTH LOSS RISK ESTIMATION CRITERION

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The most important component of life mode of any person is his activity. The motive foundation of human activity is his needs. At present specialists suggest various classifications of these needs. In accord with one of the most recognized concepts, the concept that was worked out decades ago by Abraham Maslow, there is a certain hierarchy of human needs (Maslow A., 2003, Ilyin Ye.P., 2002). This hierarchy is determined by the priority of this or that need in the process of motivation formation, and through them – of this or that human activity. The main difference of higher needs from those taking in the hierarchic structure the low, basic level, is the necessity of prior satisfaction of the low level needs. The dissatisfaction with them restrains or suppresses any higher, social, need and the corresponding human activity, by this depriving a human being the main sense of his existence – social essence of objective reality.

The safety need belongs to the number of basic, fundamental needs. In modern social psychology this very need is considered to be one of the main basic, vital needs.

Objectively, the term “safety need” integrates the whole group of various needs, the wish not to have a risk of health loss among them, which, in their term, are mediated with both objective (the environment state, dwelling and food provision and etc.) and subjective (the ability to evaluate this or that menace for personal security) factors. A certain meaning here is given to the urge not simply to avoid diseases or death, but the urge to secure social existence, e.g. the urge to avoid a loss because of the health, social status, material situation, professional or personal achievements, etc.

As the results of specially carried out by us research testify, among youth of different regions of Russia (Savelyev S.I. and co-authors, 2004) various needs of the young people, among them

the safety need, are directly connected with social health in the widest understanding of the term “social health”. In particular, to the number of medico-social manifestations of safety need dissatisfaction belongs not only the increased morbidity, but also hygienic or opposite to it deviant activity of young people, the manifestation of distress among them, etc.

It should be noted that in modern social psychology a distinct direction dedicated to human safety problems under the conditions of extreme situations was formed. This direction was named “catastrophism”. On the analogy, there came into being a peculiar specific subject field – “disaster medicine”. Both of the directions analyse scientific and practical problems of human safety proceeding from the possibility of emergency situations uprising or under the condition of extraordinary events having taken place. At that, as a measure of safety loss feeling in connection with some or other events, the appropriate human responses are considered – fears, i.e. extreme forms of safety loss feeling. And for a quantitative estimation of fear incidence in the mass of observations different derived quantities obtained by means of possible catastrophic events (beginning with the most probable and finishing with the most impossible - alien invasion, masons’ conspiracies, etc.) fear manifestation intensity and frequency regard.

Studying the hygienic aspects of safety it seemed to us inappropriate to rely on the showings rooted in various fears because expressed fears of health loss as the constant element of standard life mode occur rarely and their long-term or continuous existence is often connected with psychic deviations (phobias, etc.) The most reasonable, as the carried by us research showed, is the use of statistical criteria developed with regard of literal and non-literal perception of various, prevalent enough hygienic risks – health loss risks which actually are “every-day” ones for modern civilization. On the basis of these risks we worked out the hygienic anxiety index (HAI). While choosing this index the experience and methodical approaches, used by social psychologists in the course of realization of Russian National part of comparative International Research “Catastrophic

consciousness in the present-day world” (Shlapentokh V.E., Shubkin V.N., Yadov V.A., 1996), were taken into consideration.

The HAI level was set in on the basis of distribution of the answers to two groups of questions. The first group of questions was formulated as follows: “Do you come across such factors of health risk loss as malnutrition, stress overload, smoking, alcohol drinking, negligent attitude to health, improper life mode, hypodynamia, and the like?” The second group of questions, touching the noted risk factors and being not different from the first group actually, was formulated in some other way: “Do you consider: improper life mode, ecological factors, inheritance, disregard to your own health, working and learning conditions, shortage of aids and appliances to be a possible cause of sickness?” Altogether, there were four HAI levels considered:

the low level of hygienic anxiety. There the respondents who considered that they don't come across hygienic risks in their every day life, belonged. The numerated risk factors were not thought by them to be real factors of menace for their health;

the weak level. The respondents believed that only single risks were possible;

the level of moderate hygienic anxiety. Everyone of the questioned admitted the existence of some risks;

the level of strong hygienic anxiety. The respondents thought that the majority of the numerated risks were an objective menace for their health.

As the results of the investigation statistical data manipulation show, among 2500 young people aged under 25, studied in different educational institutions of St.-Petersburg, Bryansk and Lipetsk Regions, the low levels of hygienic anxiety were detected in 40,6%, weak - 41,4%, moderate - 11,3%, strong - 6,7% of the cases. The essential influence on these showings' distribution was made by the incidence of stress loads among the examined young people. In the group of respondents who didn't mark psychosocial stresses or marked rare stress situations, the moderate and strong levels of HAI were marked in 12,5%. Among the respondents who marked continuous stress loads, this showing increased more than twice as much (28,7%). It should be noticed that home, “every day life” stresses and “learning” stresses were equally strongly connected with the HAI showings'

distribution ( $X^2 = 409,0$ ,  $P \ll 0,001$ ,  $C_{norm} = 0AL$  and  $X^2 = 535,8$ ;  $P \ll 0,001$  and  $C_{norm} = 0,52$ ).

Thus, the more psycho-social stresses prevail (irrespective of their “nature”), the higher was the level of hygienic anxiety. Considering the incidence of stresses in the context of their organic connection with adaptation processes one could expect the existence of interconnection between the HA levels, the results of psychosocial integration processes and the levels of psychosocial adaptiveness.

The statistical analysis of the collected data proved the availability of such an interconnection. So, among young people with low psychosocial adaptiveness the moderate and strong levels of HA were marked in 11,6%. In the group of high adaptiveness – almost three times as much (in 28,6% of the cases). I.e. where the processes of psychosocial integration are the most active and the highest result is reached, the levels of hygienic anxiety are higher.

It should be noticed that the organic connection of psychosocial integration processes with stress reactions' frequency is not stiff functional. In practice this interconnection can be estimated only statistically, i.e. in the form of one or another manifestation probability. It is connected with the fact that in objective reality the system “stress-adaptation” exists under the conditions of many factors' interconnection. And the more “softly” this interconnection is, the less noticeable for a young person stresses are, even if they are objectively present as natural elements of adaptation processes. And vice versa, at close interconnection of adaptation factors stresses become more noticeable.

As the result of difficult and intensive psychosocial integration, the high frequency of psychosocial stresses is often attended by low showings of psychosocial adaptiveness. So a well known to the specialists phenomenon of one or another “adaptation cost”, i.e. the cost value of everything that in daily use is called “body defenses” spent on achieving adaptiveness to some or other factors, is found out (Bayevsky R.M., 1979). These expenditures can be extremely essential (adaptation high price) and lead to the most negative consequences despite achieving high adaptiveness. As a spectacular example a well known situation in the professional sport can serve, when high, and often - ultimate loads with which a trained sportsman copes well by virtue of his adaptiveness to them, almost inevitably cause severe remote effects.

**Table 1.** The distribution of psychosocial integration levels of the examined young people considering the stress manifestation frequency (in % from the general number of the examined)

Total stress intensity	Psychosocial adaptation level			
	high	medium	low	total
Low	14,2	10,2	4,4	28,8
Moderate	12,9	16,1	17,6	45,3
High	3,6	6,8	15,2	25,8
Total	30,7	33,1	36,2	100,0

As it is seen from the data represented (Table 1), the group of the high psychosocial integration level against the background of low stress loads, i.e. the group of low adaptation price, made 14,2% of the whole mass of the examined youth. The size of the opposite to this one group of high adaptation price (high stress and low level of adaptiveness) was practically the same - 15,2% of the examined.

Hygienic anxiety index was in close connection with the considered above adaptation price. Where the adaptation price was the highest, the index of hygienic anxiety was essentially higher. In particular, among young people from the group of high psychosocial integration the HAI reached 32,1%. In the group of moderate adaptation price it decreased up to 18,9%, and in the group of low adaptation price it didn't exceed 9,3%.

The close interconnection between such phenomena as the level of hygienic anxiety and the character of adaptation processes allows considering the increased level of hygienic anxiety, i.e. fear for one's health, as a defensive reaction, a natural and integral part of adaptation syndrome, the principles of which "...in general can be applied ...to even whole communities of people" (Selye H., 1979).

Based on the above, one can consider that the level of hygienic anxiety or its extreme manifestation – fear, is an obligatory element of active psychosocial integration. The statement, that the correct using of the fear factor is an obligatory component of healthy lifestyle social regulation, issues from here.

And it is necessary to remember that fear is like a drug, the overdosage of which can lead to heavy consequences, and shortage – deprives it efficiency as the most important medico-social factor of healthy lifestyle.

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**BLOOD SERUM ANTIOXIDANT SYSTEM AND IMMUNITY STATE AT GESTOSIS IN PLURIPARA WOMEN**

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The purpose of the research is to study the role of lipids in gestosis pathogenesis and immunity state at repeated deliveries. The problem is to define blood serum antioxidant system state (AOA) and lipid peroxidation (LPO) in 25 pluripara women (PW) with gestosis and 14 PW without complications, and to study the immune status in 50 PW. Malondialdehyde increase in blood serum of PW with gestosis ( $18,09 \pm 0,071$  nmol/ml at gestosis and  $10,48 \pm 0,54$  nmol/ml in the control), hydroperoxidation inhibition degree lowering on the quick h rise ( $0,401 \pm 0,040$  and  $0,573 \pm 0,01$ ) and oxidation enhancement of non-esterified aliphatic acids on the slow AOA h rise ( $0,368 \pm 0,012$  and  $0,476 \pm 0,029$ ) have been detected. The quantity reduction of T- ( $32,4 \pm 2,5\%$  and  $36,4 \pm 21,9$  per