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The Influence of Irrational Beliefs on Attitudes to Dangers among Medical and Psychological-Pedagogical Students

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ABSTRACT

Attitude towards dangers is the most important indicator of a person's adaptability to the surrounding reality. It includes sensitivity to threats and the choice of adequate or inappropriate responses to dangerous situations. Attitudes to danger are influenced by many factors. This study tested the hypothesis on the effect of irrational beliefs on the types of attitudes to dangers among students of medical and psychological-pedagogical profile. A total of 438 future medical students and educational psychologists of three higher educational institutions of Russia aged 17 to 40 years (average age - 19.5 ± 2.8 years old) took part in the study. Men - 121, women - 317. The author's questionnaires were used to identify sensitivity to threats and people's choice of ways to respond in situations of danger, as well as a list of the irrational beliefs of A. Beck and A. Freeman. Mathematical processing was carried out using the φ * criterion - Fisher's angular transformation and Pearson's dichotomous correlation coefficient. As a result, many positive and negative connections of irrational beliefs with the types of students' attitudes towards dangers were found. In particular, exaggeration of dangers among men is determined by obsessive-compulsive beliefs, and among women - by avoidant beliefs; ignoring dangers - among men is determined by the beliefs of the antisocial type, and among women - by the beliefs of the passive-aggressive and histrionic types. As a result, it is concluded that irrational beliefs, along with other psychological factors, make a significant contribution to the formation of a particular type of personality's attitude to dangers. By creating conditions for overcoming certain irrational beliefs and replacing them with rational ones, it is possible to influence the optimization of a person's attitude to dangers. The results can be used in the training of medical and psychological-pedagogical students, as well as in the activities of psychological services of universities, aimed at correcting students' inadequate types of attitude to dangers.

Key words: Attitude to dangers, Type of attitude to dangers, Sensitivity to threats, Ways to respond in situations of danger, Irrational beliefs, Students

INTRODUCTION

Any living being, including a human being, initially has approximately equal chances of life and death. These changes can both increase in one direction or another, and decrease. They depend on internal and external factors, the behavior of the living being, and accidents. With favorable internal and external conditions, and reasonable behavior, a person can live happily ever after [1]. If these conditions are unfavorable, the likelihood of problems

with health, psychological and social well-being increases. Any life of any living being is fraught with dangers, and the length of life will depend on how it responds to them [2, 3]. The concept of "danger" is difficult to define, as much here depends on the subject's perception of danger and his experience [4]. For example, for a person who knows how to swim well, water in a river or the sea will not pose a particular danger, and for a person who does not know how to swim, it will be the most dangerous. Therefore, the danger is usually defined in a very generalized way, as something that can cause harm or damage to a living (and in some cases, an inanimate) creature. A threat is understood as a danger that has a certain probability of occurrence. A person's assessment of the probability of a favorable or unfavorable outcome in the development of events or activities is called a risk. These three components: hazards, the subject of decision-making, reactions to hazards and risks are the subject of research in security psychology and risk psychology [5]. Since the perception of dangers is quite subjective and depends on so many factors, people begin to treat the same factors in different ways, identifying or not identifying them as threats, which determines the type of their reaction.

The most important indicators of people's attitude to dangers are sensitivity to threats and the choice of ways to respond to them, which are formed based on the individual's personal experience, his ideas about danger and safety, and psychological characteristics of the individual.

Threat sensitivity is "cognitive, affective, and behavioral responses to disgusting stimuli that indicate threat" [6]. Threat sensitivity is based on vigilance, which is understood as "... the state of readiness to detect and respond to certain specified small changes occurring at random intervals in the external environment" [7].

Vigilance is manifested in the individual's ability to maintain the focus of his attention to stimuli of a certain type for a long period [8, 9]. It has been established that threat sensitivity is an important part of sentinel or, in other words, protective behavior [10].

At the heart of a person's choice of ways to respond to situations of danger, there is a special physiological system, called "Fight, Flight, Freezing" [11]. Its discovery is associated with the name of J. Gray [12], who described the mechanisms of functioning of two neurological systems: the Behavioral Activation System (BAS) and the Behavioral Inhibition System (BIS). This discovery made it possible to explain human behavior in situations of danger. It has been proved that both animal behavior and human behavior have much in common in basic reactions to danger [13]. In particular, D. Mobbs with co-authors [14] have identified five survival strategies that humans and other animals used to protect themselves from recurring and new threats: 1) Forecasting, 2) Focus on the threat, 3) Ignoring or switching to threat assessment, 4) Tracking stimulus, weighing the value of threat, seeking security, 5) The actual defensive action in the form of flight or struggle.

While analyzing people's attitudes to dangers, the problem of adequate response to dangers, acquires a primary role, such a response that, by the situation, conditions, is carried out using socially developed methods of responding to dangers and threats. Along with an adequate response, a person can exaggerate the importance of threats and underestimate them (ignore the dangers). Therefore, the same "flight" as one of the basic responses to dangers [15], in some cases may be an adequate response, in others - a clear exaggeration of the danger (there is no threat, but for any case, you need to run away), in the third cases, when the flight is replaced by a fight, for example, with a superior enemy, there is an overestimation of their strengths and capabilities, there will be ignoring of danger (recklessness).

By the combination of sensitivity to threats and the choice of methods of response in situations of danger, 8 types of people's attitude to hazards can be distinguished: adequate sensitive, adequate with reduced sensitivity, anxious sensitive, anxious with reduced sensitivity, ignoring sensitive, ignoring with reduced sensitivity, and indefinite reduced sensitivity [16]. Adequate sensitive type should be accepted as optimal. This includes people who can detect dangers on time and adequately respond to them, using socially developed methods of behavior in situations of danger.

Studies have shown that the sensitivity to threats and the choice of ways to respond to situations of danger largely depends on the gender and age of people, as well as many personal factors, such as the need for danger and safety, the motivation for achieving success and avoiding failure, the propensity to take risks, the level of anxiety, general and social intelligence, etc. [17]. These studies have led to the assumption of the existence of some underlying determinants that can influence people's attitudes towards hazards. These determinants include the so-called irrational beliefs.

The concept of "irrational beliefs" or "irrational attitudes" was put forward and studied in detail in the framework of rational emotional-behavioral and cognitive psychotherapy [18, 19]. Rational beliefs are flexible, logical, and not catastrophic judgments of a person: "I did not pass the exam, it is unpleasant, of course, but okay, there is an opportunity to correct the situation - to retake the exam." Irrational beliefs, on the other hand, are harsh,

catastrophic, and illogical: "I did not pass the exam, I will be expelled from the university, and this is a disaster." Mostly, researchers assert the position that irrational beliefs lead to unhealthy emotions, maladaptive forms of behavior, and many pathological conditions. At the same time, it has been proved that irrational beliefs are associated not only with various human dysfunctions but also with normal psyche and motivation for activity [20]. Irrational beliefs are actively studied in modern science in the framework of medicine and psychology [21], education [22], sports [23], and others. Regarding the influence of irrational beliefs on people's attitudes towards dangers, there is only evidence of the relationship between irrational attitudes and anxiety, which often leads to the desire to exaggerate dangers [24]. The influence on the choice of adequate methods of response or the minimization of danger has been studied to a much lesser extent, which has given an impulse to organizing and undertaking a special study. The choice of students – future doctors and students – future specialists in the field of pedagogy and psychology as an object of research is contingent on the importance of an adequate attitude to dangers for these professions. Exaggeration of danger and, especially, its understatement, ignoring, for example, on the part of a doctor or psychologist, can lead to undesirable and even negative consequences. In that case, the question of identifying factors contributing to the formation of one or another type of attitude towards dangers, a special place among which irrational beliefs may take, becomes especially relevant.

The purpose of the study was to identify the influence of irrational beliefs on attitudes towards dangers among students – future doctors and educational psychologists.

The hypothesis was the assumption that irrational beliefs can act as factors that determine this or that type of attitude to danger. In particular, the beliefs of the passive-aggressive and antisocial types should lead to the desire to minimize or ignore the dangers, and the beliefs of the avoidant, dependent, and histrionic types - to exaggerate the dangers.

MATERIALS AND METHODS

The study used a complex of theoretical (analysis, comparison, generalization) and empirical (special questionnaires) methods: the author's questionnaire of sensitivity to threats, the author's questionnaire for identifying ways of responding to situations of danger, a list of irrational beliefs by A. Beck, A. Freeman.

Threat Sensitivity Questionnaire [25] consists of 12 question-tasks simulating real typical situations. Each task of the questionnaire includes the wording of a statement and four options for an answer. The scores received for all questions are summed up. As a result, we get the final score, which characterizes the level of a person's sensitivity to dangers. A scale for translating "raw" points into wall points has been developed.

Questionnaire on identifying ways of responding to hazard situations [26] consists of 17 question-statements simulating human behavior in real standard situations that can pose a threat. For each question, 4 variants of answers are offered. They are corresponding to 4 types of personality behavior: adequate, exaggerating the danger, ignoring them, indefinite. For each type of response, a total score is found, after that the "raw" scores, as in the previous case, are converted to wall scores.

By using two questionnaires, we obtain information on four parameters, assessed on a ten-point scale: sensitivity to threats, adequate response, alarming response (exaggeration of dangers), and ignorant response (underestimation of dangers). Points from 7 to 10 were taken for a relatively high level of the trait's severity, the rest - for a relatively low level of trait severity. As a result, 8 types of students' attitudes to dangers were identified: adequate - sensitive and with reduced sensitivity, anxious - sensitive and with reduced sensitivity, ignoring - sensitive and with reduced sensitivity, indefinite - sensitive and with reduced sensitivity.

List of Irrational Beliefs by A. Beck, A. Freeman [27]. The list includes 126 beliefs, summarized in nine groups. There are 14 judgments in each group: 1) Avoidant personality disorder, 2) Addictive disorder, 3) Passive-aggressive disorder, 4) Obsessive-compulsive disorder, 5) Antisocial disorder, 6) Narcissistic disorder, 7) Histrionic disorder, 8) Schizoid disorder, and 9) Paranoid disorder. In the general list presented to students, the name of the groups of judgments was omitted, only the group number was present. Students were asked to read the list carefully, then select from these 126 beliefs only those that most characterize their personality. It was recommended to choose from 3 to 5 judgments. If the test person believed that none of the judgments suited him, he did not choose at all.

In total, 438 students - future physicians and educational psychologists of three higher educational institutions of Russia: Ivanovo State Medical Academy (Ivanovo, Russia), Moscow Humanitarian University (Moscow, Russia), and Cherepovets State University (Cherepovets, Vologda Region, Russia) between the ages of 17 and 40 (mean age 19.5 ± 2.8 years old) have taken part in the research. Men - 121, women - 317. The sample was formed in

random order. The gender disparity is caused by the fact that in Russia the professions of a doctor, a teacher, and or a psychologist are mainly female professions. Irrational beliefs among 319 people of this number were studied. 89 men and 230 women were examined.

The processing of the results was carried out using the methods of mathematical statistics, the φ^* criterion was used - Fisher's angular transformation, as well as correlation analysis using φ - Pearson's dichotomous correlation coefficient.

RESULTS AND DISCUSSION

Let us turn directly to the analysis of the main results of the study. First of all, let us characterize the sample of test people according to two parameters: types of attitudes towards dangers and types of irrational beliefs. The distribution of students by type of attitude towards hazards, taking into account gender, is presented in **Table 1**.

Table 1. Types of Attitudes towards Dangers among Students

№	Types of Attitudes Towards Dangers	Students in General		Men		Women		Statistical Significance of Difference (φ criterion* – Fischer Angular Transformation)
		n	%	n	%	n	%	
1	Adequate Sensitive	126	28.77	34	28.10	92	29,02	$\varphi^* = 0.19$, Negligible
2	Adequate with Reduced Sensitivity	64	14.61	21	17.36	43	13,57	$\varphi^* = 0.99$, Negligible
3	Anxious Sensitive	39	8.90	6	4.96	33	10,41	$\varphi^* = 1.93$, $p \leq 0,05$
4	Anxious with Reduced Sensitivity	51	11.64	2	1.65	49	15,46	$\varphi^* = 5.12$, $p \leq 0,001$
5	Ignoring Sensitive	13	2.97	7	5.79	6	1,89	$\varphi^* = 1.96$, $p \leq 0,05$
6	Ignoring with Reduced Sensitivity	47	10.73	19	15.70	28	8,83	$\varphi^* = 1.99$, $p \leq 0,05$
7	Vague Sensitive	33	7.53	13	10.74	20	6,31	$\varphi^* = 1.49$, Negligible
8	Uncertain with Reduced Sensitivity	65	14.85	19	15.7	46	14,51	$\varphi^* = 0.33$, Negligible
Total:		438	100	121	100	317	100	

As demonstrated in **Table 1**, 28.77% of students (126 people) adhere to an adequate sensitive type of attitude to hazards, which belongs to the optimal type, and the difference between men (28.10%) and women (29.02%) was not statistically significant ($\varphi^* = 0.19$ negligible). This type includes people who can detect and identify danger signals in time, and adequately, that is, following accepted norms and rules, to respond to them. Adequate type with reduced sensitivity was 14.61% (64 persons), which also, in percentage terms, was approximately the same among men (17.36%) and women (13.57%). This type includes students who do not have a high sensitivity to threats, but in cases of the onset of danger, they can adequately respond to it.

The anxious sensitive type of attitude to dangers, which included people who were sensitive to threats and exaggerated the importance of danger, made up a relatively small percentage of the persons- 8.90% (39 persons). For men, it was only 4.96%, and for women - 10.41%. The differences are statistically significant ($\varphi^* = 1.93$, $p \leq 0.05$). Approximately the same picture is observed in the analysis of the anxious type with reduced sensitivity. This type was made up of students not sensitive to threats but inclined to react emotionally to them if the probability of their occurrence increases, exaggerating the value - 11.64% (51 people). For women, it was 15.46%, and for men - only 1.65%. The differences are statistically significant ($\varphi^* = 5.12$, $p \leq 0.001$).

The ignoring sensitive type made up a small percentage of the persons - 2.97% (13 persons). Moreover, for men, it was 5.79%, and for women - 1.89%. The differences are statistically significant ($\varphi^* = 1.96$, $p \leq 0.05$). It should be noted that this type is more typical for adolescence than for students, when an individual, identifying a signal as dangerous, nevertheless ignores it, flaunting his courage, satisfying the need for self-affirmation. A somewhat different picture emerges in the analysis of the ignoring type with reduced sensitivity, which already amounted to 10.73% (47 persons). It consists of students who are insensitive to threats and, for various reasons, ignore dangers.

Among men, it turned out to be, as expected, higher - 15.70%, than among women - 8.83%. The differences are statistically significant ($\varphi^* = 1.99, p \leq 0.05$).

Finally, two types, classified as indefinitely sensitive and indefinite with reduced sensitivity, amounted to 7.53% (33 persons) and 14.85% (65 persons). Moreover, among men, the indeterminate sensitive type was represented to a slightly higher degree (10.74%) than among women (6.31%), but the differences were not statistically significant ($\varphi^* = 1.49$, negligible). Concerning indefinite type with low sensitivity, it should be stated that both men and women have approximately the same representation (15.70% and 15.51%). There are two ways to explain the existence of undefined types of hazard response. First, this includes people who have not yet developed an individual way of responding to dangers. Secondly, people who, on the contrary, selectively react to danger, depending on the situation, their experience, and individual personality traits.

That way, the study has found all types of students' attitudes towards hazards. Most of the students respond adequately to dangers, but some exaggerate the importance of danger, and who underestimate it. It was found that women are more likely than men to exaggerate the dangers, and men tend to ignore them, which fully confirms the data available in psychology [16].

Similarly, let us analyze the representation of the types of irrational beliefs among students. The results have been shown in **Table 2**.

Table 2. Types of Irrational Beliefs among Students*

№	Types of Irrational Beliefs	Students in General		Men		Women		Statistical Significance of Difference (φ Criterion* – Fischer Angular Transformation)
		n	%	n	%	n	%	
1	Avoidant Beliefs	64	20.06	19	21.35	45	19.57	$\varphi^* = 0.36$, Negligible
2	Dependent Type Beliefs	75	23.51	20	22.47	55	23.91	$\varphi^* = 0.27$, Negligible
3	Passive-aggressive Beliefs	118	36.99	33	37.08	85	36.96	$\varphi^* = 0.02$, Negligible
4	Obsessive-compulsive (obsessive) Beliefs	172	53.92	41	46.07	131	56.96	$\varphi^* = 1.74, p \leq 0,05$
5	Anti-social Beliefs	58	18.18	16	17.98	42	18.26	$\varphi^* = 0.06$, Negligible
6	Narcissistic Beliefs	33	10.34	7	7.87	26	11.30	$\varphi^* = 0.93$, Negligible
7	Histrionic (Demonstrative) Beliefs	92	28.84	21	23.6	71	30.87	$\varphi^* = 1.31$, Negligible
8	Schizoid-type Beliefs	111	34.80	37	41.57	74	32.17	$\varphi^* = 1.56$, Negligible
9	Paranoid-type Beliefs	41	12.85	13	14.61	28	12.17	0.56, Negligible

* Note: The sum of the percentages is not 100%, since the same subject may have different irrational beliefs.

The study revealed all 9 types of irrational beliefs among students. The most common beliefs are obsessive-compulsive (obsessive compulsions) type. They were found among 53.92% of the persons (172 persons). In the female sample, this type was 56.96%, and in the male sample - 46.07%, the differences are statistically significant ($\varphi^* = 1.74, p \leq 0.05$). The following positions are held by convictions: passive-aggressive type - 36.99% (118 persons), schizoid type - 34.80% (111 people), histrionic (demonstrative) type - 28.84% (92 persons), dependent type - 23.51% (75 persons), avoidant type - 20.06% (64 persons), antisocial type - 18.18% (58 persons). The last two places in terms of representation in the sample are held by beliefs of the paranoid type - 12.85% (41 persons) and the narcissistic type - 10.34% (33 persons). Apart from the obsessive-compulsive type of persuasion, nowhere else there were any statistically significant differences between men and women.

Let us turn to the solution of the main task of this study - to identify the relationship between the types of students' attitudes towards dangers and types of irrational beliefs. For this purpose, let's sequentially take each of the types of attitudes towards danger as "1", and the rest - as "0". Likewise, each type of irrational belief is for "1", and the rest - for "0". As a result, all information obtained in the study is converted into a dichotomous scale, which makes it possible to carry out a correlation analysis using φ - Pearson's dichotomous correlation coefficient.

Because some differences were revealed in attitudes towards the dangers of men and women, the correlation analysis is carried out separately in the male and female samples of persons. The study involved 319 students, 89 men, and 230 women. The results have been shown in **Figures 1 and 2**.

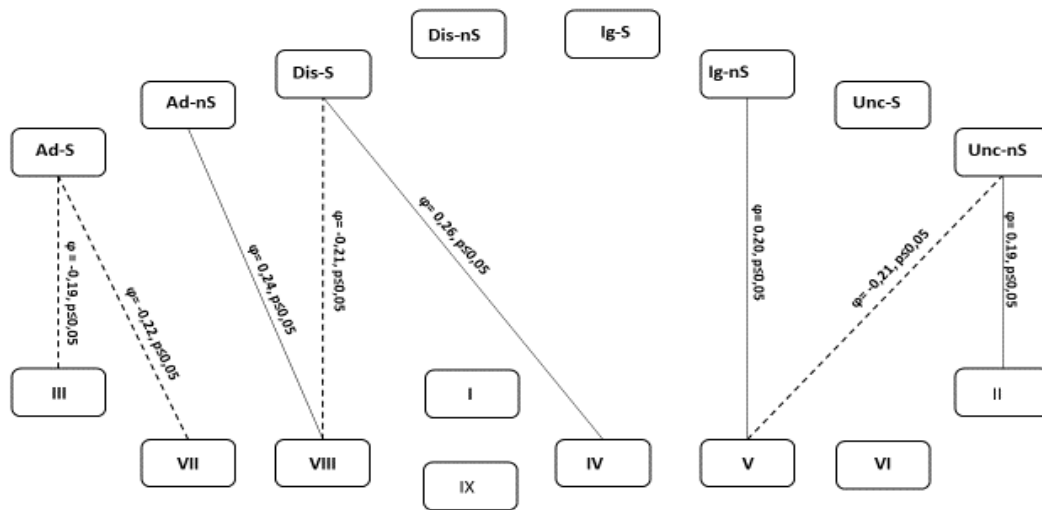


Figure 1. The interrelation of Irrational Beliefs and Types of Attitudes towards Hazards in a Male Sample of Persons (N = 89) *

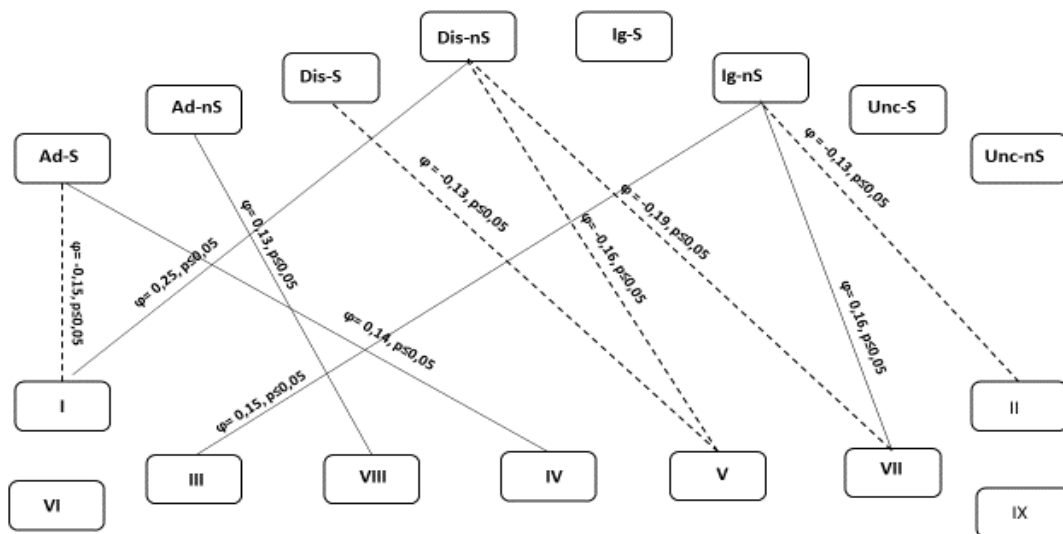


Figure 2. The Relationship of Irrational Beliefs and Types of Attitudes towards Hazards in the Female Sample of Persons (N = 230) *

*Note. Designation of Types of Attitudes Towards Hazards: Ad-S - Adequate Sensitive; Ad-nS - Adequate with Reduced Sensitivity; Dis-S - Anxious Sensitive; Dis-nS - Anxious with Decreased Sensitivity; Ig-S - Ignoring Sensitive; Ig-nS - Ignoring with Reduced Sensitivity; Unc-S - Undefined Sensitive; Unc-nS - Undefined with Reduced Sensitivity.

Designation of types of irrational beliefs: I - Avoidant type beliefs; II- Beliefs of the dependent type; III - Beliefs of the passive-aggressive type; IV - Beliefs of the obsessive-compulsive type; V - Antisocial beliefs; VI - Beliefs of the narcissistic type; VII - Beliefs of the histrionic type; VIII - Beliefs of the schizoid type; IX - Beliefs of the paranoid type. – Positive connection; Negative relationship.

As can be seen from **Figure 1** and **Figure 2**, both men and women were found to have both common and different relationships between types of attitudes toward dangers and types of irrational beliefs. In general, it must be stated that the study did not obtain very high correlation coefficients, nevertheless, many statistical relationships that

were significant at the 5% level had been revealed. This indicates that with the severity of this or that irrational belief in this or that individual, the likelihood increases that he will adhere to a certain type of attitude to danger in situations of threat.

Among men, an adequate sensitive type of attitude towards dangers (Ad-S) negatively correlates with the beliefs of the passive-aggressive ($\varphi = -0.19, p \leq 0.05$) and the beliefs of the histrionic ($\varphi = -0.22, p \leq 0.05$) types. This indicates that male students with pronounced passive-aggressive attitudes, as well as with demonstrative behavior, will show a tendency to any other type of response to danger, except an adequate sensitive one. A different picture is observed in the female sample. Here, a positive relationship was revealed between an adequate sensitive type of attitude to dangers and obsessive-compulsive beliefs ($\varphi = 0.14, p \leq 0.05$) and a negative relationship with avoidant beliefs ($\varphi = -0.15, p \leq 0.05$). Consequently, if female students are aimed at high standards of performance and are not inclined at the same time to tactics of avoidance, then they will show sensitivity to threats and respond adequately to them.

Among both men and women, a positive relationship was found between an adequate attitude to dangers (Ad-nS) with a reduced sensitivity type and schizoid-type beliefs (men - $\varphi = 0.24, p \leq 0.05$; women - $\varphi = 0.13, p \leq 0.05$). Representatives of the schizoid type are characterized by such attitudes as "I have to rely on myself to make sure everything is done", "I need order, systems, and rules to do the job properly." Therefore, it is not surprising that they, showing low sensitivity to threats, nevertheless, when it is realized, they react mostly adequately.

The anxiously sensitive type of attitude towards dangers (Dis-S) among men positively correlates with the obsessive-compulsive type of attitudes ($\varphi = 0.26, p \leq 0.05$) and negatively - with the schizoid type attitudes ($\varphi = -0.21, p \leq 0.05$). Thus, if among women the obsessive-compulsive type determines an adequate response, then among men, in combination with the absence of schizoid-type attitudes, it leads to a desire to exaggerate the dangers. In the female sample, both anxious sensitive and anxious with reduced sensitivity (Dis-nS) are negatively associated with antisocial type beliefs ($\varphi = -0.13, p \leq 0.05$ and $\varphi = -0.16, p \leq 0.05$). Besides, the anxious type with decreased sensitivity positively correlates with avoidant type beliefs ($\varphi = 0.25, p \leq 0.05$) and negatively correlates with histrionic type beliefs. It follows that female students who are inclined to avoid troubles, do not violate social norms and rules, and do not suffer from demonstrative behavior, in situations of danger will exaggerate their importance.

Particular attention in the study was paid to the problem of students' ignoring of dangers. The results showed that in the male sample, the type of attitude to danger (Ig-nS) that ignores with reduced sensitivity is directly related to beliefs of the antisocial type ($\varphi = 0.20, p \leq 0.05$), in particular, the attitude plays an important role: "If I want something, I must do everything to get it," which leads to the desire to ignore the dangers. In the female sample, disregard for danger is due to histrionic-type beliefs, for example, "I am an interesting, attractive person" ($\varphi = 0.16, p \leq 0.05$), and passive-aggressive beliefs ($\varphi = 0.15, p \leq 0.05$), combined with a desire to show their independence ($\varphi = -0.13, p \leq 0.05$).

The indeterminate sensitive and indeterminate with reduced sensitivity types (Unc-S and Unc-nS) among women did not reveal statistically significant connections with irrational beliefs, and among men, the indefinite type with decreased sensitivity was positively associated with the dependent type beliefs ($\varphi = 0.19, p \leq 0.05$) and negatively with antisocial beliefs ($\varphi = -0.21, p \leq 0.05$). This allows us to conclude that, in the process of assessing the situation as dangerous or safe, young students prefer to orient themselves towards significant people whom they intuitively perceive as their defenders.

The problem of the influence of irrational beliefs on the manifestation of personal qualities and behavior of people is widely discussed in modern science. In the classical works of the founders of these directions, the relationship between irrational beliefs and depressive states has been established [28, 29], irrational beliefs and negative emotions [30], irrational beliefs, and perfectionism [31]. Subsequent studies have shown the influence of irrational beliefs on the occurrence of distressing states [32], anger, a tendency to coercion and aggression [33], on the formation of communication style [34].

As for the study of the determinants of people's attitudes towards hazards, several interesting studies shed light on nature, first of all, exaggeration or minimization of dangers. It has been found that people who are anxious with an increased sense of fear are more likely to exaggerate the dangers [35]. This is associated with the incorrect formation of the attitude to dangers in childhood on the part of parents [36], as well as with the lack of training people with increased anxiety inadequate ways to respond to danger [37]. The underestimation or neglect of threats is due to an increased propensity to take risks [38, 39]. An important role is also played by high impulsivity in combination with low emotional stability [40], which can lead to manifestations of carelessness. In particular,

in a study by S. A Hanawi *et al.* [41], it has been shown that ignorance of hazards, manifested in neglect of healthy lifestyles in students, increases anxiety, depression, and stress.

The results presented in this study significantly expand the understanding of modern psychology about the internal determinants of the attitude of people, in this case, students, to dangers. The presence or absence of certain irrational beliefs increases the likelihood of developing a certain type of attitude towards dangers.

It was defined that an adequate sensitive type of attitude towards dangers is practically not directly positively associated with irrational beliefs, except female students, whom obsessive-compulsive beliefs prevail in. An adequate response with increased sensitivity to threats here is precisely determined by the desire to be the best, achieve significant results, earn praise and recognition, and this can be done only by carefully observing the rules and regulations, that is, adequately responding to a real or potential threat.

Attitudes of the schizoid type among both men and women determine the choice of an adequate, but with reduced sensitivity, type of attitude to dangers. This is due to the pedantry of the schizoid type, the desire to do everything right, but not getting close to other people, keeping a distance, and not paying attention to possible threats.

The desire to exaggerate the dangers is more typical for women than for men. Among men, the anxious sensitive type was found among only 6 persons, it is based on the obsessive-compulsive type of beliefs, where the leading role is played by attitudes associated with the desire to be the best, to achieve only significant results. Associated with this is an increased sensitivity to threats, and a desire to exaggerate their significance. We did not consider the anxious type of attitude towards dangers with reduced sensitivity, since it consists of only 2 students. In the female sample, the exaggeration of dangers was associated with avoidant attitudes. As A. Beck and A. Freeman note, "their main strategy is to avoid situations in which they can be judged. People of this category tend to stay aloof in social groups and not draw attention to themselves. At work, they avoid new responsibilities and promotions for fear of failure and subsequent reprisals from others" [27, 38]. The exaggeration of dangers, therefore, acts as a specific tactic for the implementation of the avoidance strategy.

Ignoring the dangers also found correlations with a number of irrational beliefs, with different data being obtained for male and female students. If among students the type of attitude towards dangers that is ignoring with reduced sensitivity is due to antisocial attitudes, then among female students - attitudes of passive-aggressive and histrionic (demonstrative) orientation. In the first case (among men), ignoring the dangers is associated with the desire for self-assertion, defending their independence: "If I adhere to the rules, I lose my freedom of action." In the second (among women) - with the idea of as an exceptional personality, which should be recognized by others, with a desire to act in their way, to avoid control, to earn only approval: "It is unbearable to be under the control of others", "I must do everything to my own ", "I deserve to be commended for everything I have done".

The uncertain response is due to two reasons: either a non-established type of response in situations of danger or a selective response, which makes it impossible to talk about a certain stable type. At the same time, in the male sample, it was found that some men in situations of danger prefer to act according to the model, as does the person they perceive as a protector.

CONCLUSION

So, based on the research carried out, many conclusions can be presented.

Eight types of students' attitudes to dangers were identified, differing in the level of severity of sensitivity to threats and the choice of adequate or inadequate ways of responding to situations of danger. More than 40% of the persons were adequate (sensitive and with reduced sensitivity) type, 20% (sensitive and with reduced sensitivity) are inclined to exaggerate the significance of the dangers, and women are more than men, about 14% (main people with reduced sensitivity) inclined to ignore dangers, among men this type is more common than among women, the rest of the students made up an indefinite type (sensitive and with reduced sensitivity) of attitude to dangers.

It was found that students have a fairly wide range of irrational beliefs that are not pathological and do not indicate violations of the psychological plan, but they affect the behavior of students, particularly, their attitude to dangers, and differentiated depending on gender.

An adequate sensitive type of attitude towards dangers among men is negatively correlated with the beliefs of the passive-aggressive type and the beliefs of the histrionic type, and among women, it is negatively associated with the avoidant type beliefs and positively with the obsessive-compulsive type beliefs. Among both men and women, an adequate type of attitude to dangers with reduced sensitivity is largely due to the presence of schizoid-type attitudes.

The anxiously sensitive type of attitude towards dangers among men correlates positively with the obsessive-compulsive type of attitudes and negatively with the schizoid-type attitudes. Among women, both the anxiously sensitive and anxious with low sensitivity types are negatively associated with antisocial type beliefs, and the anxious with low sensitivity type, in addition, is also positively correlated with avoidant type beliefs, and negatively - with histrionic type beliefs.

The type of attitude towards dangers with reduced sensitivity among men is associated with antisocial beliefs, and among women - with beliefs of the passive-aggressive and histrionic types in the absence of dependent-type attitudes.

Thus, our hypothesis was only partially confirmed, the study revealed, firstly, a wider spectrum of the influence of irrational beliefs on students' attitudes towards dangers, and secondly, it showed that this influence may differ depending on gender.

In general, it is necessary to conclude that irrational beliefs, along with other psychological factors, make a significant contribution to the formation of a particular type of personality's attitude to dangers. By creating conditions for overcoming certain irrational beliefs, replacing them with rational ones, one can influence the optimization of a person's attitude to dangers, that is, the development of an adequate sensitive type, optimal for a person's interaction with the outside world and other people.

We see the limitations of the study in the fact that the same person can combine different types of beliefs that may influence his behavior in different ways, including his attitude to danger. Therefore, the further prospect of research can already be seen in the practical plane, associated with the study of identifying the role of irrational beliefs in the determination of behavior and attitudes towards hazards at the level of an individual.

The results of the study can be used in the process of professional training of medical and psychological-pedagogical students, as well as in the activities of psychological services of universities, aimed at forming an adequate sensitive type of students' attitude to dangers, which involves creating conditions for overcoming irrational beliefs among students, substitution them for rational.

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REFERENCES

1. Ramezanli S, Jahani Z, Poorgholami F, Jahromi FF. The relationship between spiritual intelligence and happiness in cancer patients referring to selected hospitals of Tehran university of medical sciences. *J Adv Pharm Educ Res.* 2020;10(3):57-61.
2. Motlagh AR, Shojaeizadeh D, Azam K, Kaboli NE. Adolescent obese females and quality of lifestyle: an examination of anthropometric and socio-economic factors in Tehran-Iran. *Entomol Appl Sci Let.* 2020;7(4):66-70.
3. Ilali EA, Loleti HA, Charati JY, Khatir MA. The relationship between attachment styles and meaning in life in elders. *Pharmacophore.* 2019;10(5):37-44.
4. Simpson R. Neither clear nor present: The social construction of safety and danger. In *Sociological Forum* 1996 Sep 1 (Vol. 11, No. 3, pp. 549-562). Kluwer Academic Publishers-Plenum Publishers.
5. Siegrist M, Árvai J. Risk perception: Reflections on 40 years of research. *Risk Anal.* 2020;40(S1):2191-206.
6. Denefrio S, Dennis-Tiwary TA. Threat Sensitivity. *Encyclopedia of Personality and Individual Differences.* Springer, Cham. 2018.
7. Mackworth, N. Vigilance. *Nature.* 1956;178(4547):1375-7.
8. Warm JS, Finomore VS, Vidulich MA, Funke ME. Vigilance: A perceptual challenge. In: R. R. Hoffman, P. A. Hancock, M. W. Scerbo, R. Parasuraman, & J. L. Szalma (Eds.). *Cambridge handbooks in psychology. The Cambridge handbook of applied perception research.* 2015. Vol. 1 (p. 241-283). Cambridge University Press.

9. Toor MN, Baig MT, Shaikh S, Shahid U, Huma A, Ibrahim S, et al. Pharmacovigilance as an Essential Component of Pharmacotherapy at Tertiary Hospitals in Rural Areas of Pakistan. *Pharmacophore*. 2020;11(4):71-5.
10. Ein-Dor T. Facing danger: how do people behave in times of need? The case of adult attachment styles. *Front Psychol*. 2014;5:1452.
11. Donahue JJ. Fight-flight-freeze system. *Encycl Personal Individ Differ*. 2020:1590-5.
12. Gray JA. The neuropsychology of anxiety. *Br J Psychol*. 1978;69(4):417.
13. Blanchard DC, Hynd AL, Minke KA, Minemoto T, Blanchard RJ. Human defensive behaviors to threat scenarios show parallels to fear-and anxiety-related defense patterns of non-human mammals. *Neurosci Biobehav Rev*. 2001;25(7-8):761-70.
14. Mobbs D, Hagan CC, Dalgleish T, Silston B, Prévost C. The ecology of human fear: survival optimization and the nervous system. *Front Neurosci*. 2015;9:55.
15. O'Dea CJ, Bueno AM, Saucier DA. Fight or flight: Perceptions of men who confront versus ignore threats to themselves and others. *Personal Individ Differ*. 2017;104:345-51.
16. Maralov VG, Gura AY, Tatlyev RD, Epanchintseva GA, Bukhtiyarova IN, Karavaev DM. Influence of the sex and age on people's attitude toward hazards. *Astra Salvensis*. 2019;(13):343-51.
17. Maralov VG, Sitarov VA, Kudak MA, Maralova TP, Koryagin II. Phenomena of adequate response, exaggeration or understatement of dangers by people. *Perspect Sci Educ*. 2020;45(3):360-78.
18. Beck AT. *Cognitive therapy and the emotional disorders*. Penguin; 1979.
19. Ellis A. *Reason and emotion in psychotherapy: Revised and updated*. New York: Birch Lane. 1994.
20. Sakakibara E. Irrationality and pathology of beliefs. *Neuroethics*. 2016;9(2):147-57.
21. David D, Cotet C, Matu S, Mogoase C, Stefan S. 50 years of rational-emotive and cognitive-behavioral therapy: A systematic review and meta-analysis. *J Clin Psychol*. 2018;74(3):304-18.
22. Ozer EA, Akgun OE. The effects of irrational beliefs on academic motivation and academic self-efficacy of candidate teachers of computer and instructional technologies education department. *Procedia Soc Behav Sci*. 2015;197:1287-92.
23. Turner MJ. Rational emotive behavior therapy (REBT), irrational and rational beliefs, and the mental health of athletes. *Front Psychol*. 2016;7:1423.
24. Jibeen T. Personality dimensions and emotional problems: The mediating role of irrational beliefs in Pakistani adult non-clinical sample. *Int J Psychol*. 2015;50(2):93-100.
25. Maralov VG, Malysheva EY, Nifontova OV, Perchenko EL, Tabunov IA. Development of test on sensitivity to threats in adolescence. *Prospects Sci*. 2012:32-7.
26. Maralov VG, Malysheva EYu, Smirnova OV, Perchenko EL, Tabunov IA. Development of a test questionnaire to identify ways of responding in situations of danger in adolescence. *Almanac Mod Sci Educ*. 2012;12-1(67):92-6.
27. Beck A, Freeman A. *Cognitive psychotherapy of personality disorders*. Sank-Petersburg: Peter; 2019. p. 44.
28. Beck AT, editor. *Cognitive therapy of depression*. Guilford press; 1979.
29. Beck AT. Cognitive models of depression. *Clin Adv Cogn Psychother*. 2002;14(1):29-61.
30. David D, Schnur J, Belloiu A. Another search for the "hot" cognitions: Appraisal, irrational beliefs, attributions, and their relation to emotion. *J Ration Emot Cogn Behav Ther*. 2002;20(2):93-131.
31. Ellis A. The role of irrational beliefs in perfectionism. In: G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment*. Washington, DC, US: American Psychological Association. 2002:217-29.
32. Vıslá A, Flückiger C, Grosse Holtforth M, David D. Irrational beliefs and psychological distress: A meta-analysis. *Psychother Psychosom*. 2016;85(1):8-15.
33. Beck AT. *Prisoners of hate: The cognitive basis of anger, hostility, and violence*. New York, NY, US: HarperCollins Publishers; 1999. 368 p.
34. Goldberg GM. Irrational beliefs and three interpersonal styles. *Psychol Rep*. 1990;66(3):963-9.
35. Perkins AM, Cooper A, Abdelall M, Smillie LD, Corr PJ. Personality and defensive reactions: fear, trait anxiety, and threat magnification. *J Personal*. 2010;78(3):1071-90.
36. Britton JC, Lissek S, Grillon C, Norcross MA, Pine DS. Development of anxiety: the role of threat appraisal and fear learning. *Depress Anxiety*. 2011;28(1):5-17.
37. Gazendam FJ, Kamphuis JH, Kindt M. Deficient safety learning characterizes high trait anxious individuals. *Biol Psychol*. 2013;92(2):342-52.

38. Horvath P, Zuckerman M. Sensation seeking, risk appraisal, and risky behavior. *Personal Individ Differ.* 1993;14(1):41-52.
39. Zuckerman M. Sensation seeking and risky behavior. *Am Psychol Assoc*; 2007.
40. Prince-Embury S. Risk behavior and personal resiliency in adolescents. *Can J Sch Psychol.* 2015;30(3):209-17.
41. Hanawi SA, Saat NZ, Zulkafly M, Hazlenah H, Taibukahn NH, Yoganathan D, et al. Impact of a Healthy Lifestyle on the Psychological Well-being of University Students. *Int J Pharm Res Allied Sci.* 2020;9(2) ;1-7.