

Psychological and pedagogical technologies for the students' sustainable behavior development

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Abstract. The aim of the research is to theoretically substantiate and experimentally study the peculiarities of students' stable behavior. The research was conducted using theoretical methods: analysis of scientific works of domestic and foreign authors devoted to the topics of aggressive behavior in the younger adolescence and anxiety in younger adolescents; generalization and systematization of materials. The research was organized by the authors of the paper as an ascertaining natural experiment. The results of the conducted research showed the following: the current levels of aggressive behavior in the sample of subjects were measured, the number of subjects with expressed personal and situational anxiety, for whom a stressful situation can be a significant stimulus, was found out. Close direct correlations were found between the indicators of aggressive behavior and situational and personal anxiety. Negativism and guilt were least connected with situational and personal anxiety, and the closest correlations were found between the indicators of anxiety and "physical aggression", "verbal aggression", "indirect aggression", "suspicion", "resentment", "physical aggression", "verbal aggression", "indirect aggression", "suspicion", "resentment". The obtained results make it possible to assume that psychological and pedagogical correction of situational and personality anxiety will help to reduce the increased level of aggressive behavior in younger adolescents. Psychological work with aggressive manifestations in the key of forming the skill of constructive response, in turn, can reduce situational, and subsequently more stable personal anxiety.

1 Introduction

At the present stage, research into the behavior of students in the natural environment of an educational institution [15; 14; 7; 21] shows that the maximum number of conflicts occurs between peers themselves, and this, in turn, leads to the spontaneous formation of antisocial habits, aggressive behavior in all its types and forms is intensively manifested and consolidated as a "norm" [20; 9].

Aggression is often a means by which people assert themselves in the collective, get what they want, but at the same time, aggressive behavior does not always mean harm to others [8].

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A significant part of definitions is reduced to the understanding of aggression as harmful behavior in relation to both animate (D. Myers [22], R. Baron [3], D. Richardson [3]) and inanimate objects (E. Fromm [13], N.D. Levitov [18]).

2 Materials and methods

There are different methodological approaches to studying aggressive behavior:

1. Psychoanalytical, in which aggression acts as a defense mechanism, withdrawing the accumulated negative energy from the organism, outside, to any environmental objects (A. Freud [11], Z. Freud [12]).
2. ethological, stating that aggressive behavior of humans and animals is a biological, genetically determined reaction to the environment, making it possible to survive and gain access to vital resources (C. Lorenz) [19].
3. the behaviorist approach treats aggressiveness as an effective behavioral model of getting what is desired, fixed in experience, which becomes under the influence of numerous and diverse social factors (A. Bandura [1], A. Bass [6]).
4. The frustration approach considers aggression as a reaction of a personality to the collision with insurmountable barriers on the way to achieving the goal, culminating in a state of frustration (J. Dollard [10], L. Berkowitz) [5].

Temperament (such characteristics as strength-weakness, balance-mobility of the nervous system, which can contribute to aggressive reactions of exhaustion and fatigue, increased excitability, getting stuck in an excited state, due to the predominance of the strength of excitation over the strength of inhibition of nervous processes, sudden bursts of aggression in the accumulation of unexpressed due to the predominance of inhibition reactions, etc.) can also influence the severity of aggressive behavior [32].

Social psychological adaptation is a factor in the formation of adequate perceptions of one's personality. At the same time, the high concentration of such a predictor as aggression reduces the level of the named subjective representations, which requires the implementation of appropriate psychological and pedagogical technologies.

3 Results and discussion

The research was conducted with the help of theoretical methods: analysis of scientific works of domestic and foreign authors devoted to the topics of aggressive behavior, generalization and systematization of materials.

The objective is to theoretically substantiate and experimentally study the aggressive behavior of students.

The research goals can be formulated as follows:

1. To conduct a theoretical analysis of the subject of research.
2. To describe approaches to identifying the relationship between anxiety and aggressive behavior.
3. To conduct diagnostic techniques that reveal aggressive behavior.

The research is organized as an ascertaining natural experiment involving the implementation of diagnostic measurements of indicators of aggressive behavior. As empirical methods the survey, the method of subjective evaluation were used. The following methods were used: A. Bass, A. Darkey aggression level research questionnaire (in Russian standardized by A.A. Hvan, Y.A. Zaitsev and Y.A. Kuznetsova) [16], which diagnoses typical forms of aggressive behavior for respondents; calculation of Pearson correlation coefficient [26]. Total number - 60 respondents.

Figure 1 is devoted to the level indices of aggressiveness obtained according to the methodology of A. Bass and A. Darkey.

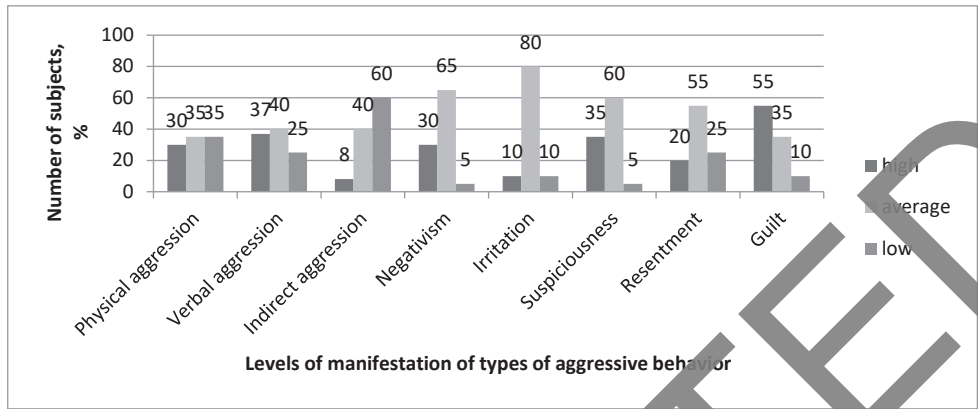


Fig.1. Level indices of aggression obtained according to the methodology of A. Bass, A. Darkey

The distribution presented in Figure 1 indicates the dominance of the average level of irritability (80%), negativism (65%), suspiciousness (60%).

However, there is also a high level of indirect aggression (60%), guilt (55%), verbal aggression (37%).

Next, let us consider the level of anxiety of the studied students.

The results of the research using the C.D. Spielberg methodology to identify personal and situational anxiety are presented in Figure 2.

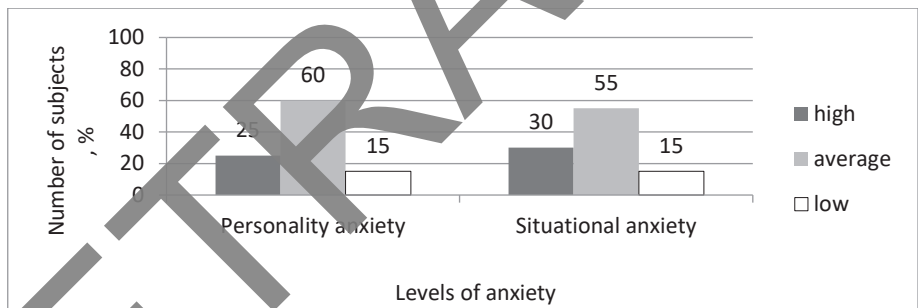


Fig. 2. Distribution of personal and situational anxiety levels in younger adolescents according to the method of subjective assessment of situational and personal anxiety by C.D. Spielberger (adapted by Y.L. Khamin).

On the scale of situational anxiety it was revealed that 30% of junior teenagers have a high level of anxiety, average (moderate) level is typical for 55% of respondents, low level - for 15% of schoolchildren.

On the scale of “personal anxiety” it was found that 25% of respondents have a high level of anxiety, 60% have an average level, and 15% have a low level.

Young teenagers with high anxiety indicators should be helped in the process of forming leadership qualities, skills of confident behavior and communication.

The state of situational anxiety (its high level is featured by 30% of surveyed students) is connected with stressful situations.

Low level of anxiety (situational anxiety in 15% of respondents, personal anxiety also in 15% of students) requires the development of activity, interest and responsibility.

We have also compared and analyzed the sample indicators of situational and personal anxiety in order to make a conclusion on the significant stress for a schoolchild.

It was revealed that indicators of situational anxiety prevail in 10% of students, personal anxiety - in 35%, both types of anxiety are expressed in 55% (Fig. 13).

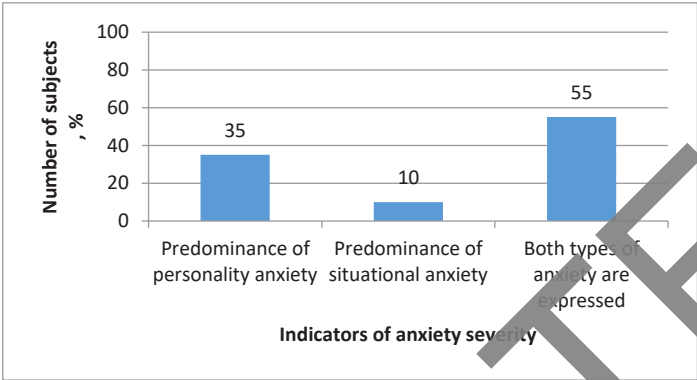


Fig. 3. Results of individual significance of stressful situation, %

A quarter of the surveyed younger adolescents (25%) have a high level of anxiety on both scales (situational and individual). Therefore, the

As a result of correlation analysis using Pearson's correlation coefficient, the following was found (Table 1).

Table 1. Correlations between the values of aggressive behavior and anxiety, n=60

	PhA	VA	IA	N	IR	S	R	G	AI	HI
SA	.676**	.529**	.365**	.070	.23**	.668**	.436**	-.102	.808**	.682**
PA	.623**	.516**	.306**	.172	.134	.746**	.396**	.012	.746**	.699**

* - $p \leq 0.05$, ** - $p \leq 0.01$

Source: [Compiled by the authors]

Abbreviations used:

SA - situational anxiety; PA - personality anxiety.

PhA - physical aggression; VA - verbal aggression; IA - indirect aggression; N - negativism; IR - irritation; S - suspicion; R - resentment; G - guilt; AI - aggression index; HI - hostility index.

As a result of correlation analysis using Pearson's correlation coefficient, we found:

- low statistically significant positive (direct) and inverse correlation of the levels of “situational anxiety” and the scales of negativism, guilt ($p \geq 0.05$);
- average statistically significant positive (direct) correlation between the levels of “situational anxiety” and the “irritation” scale ($p \leq 0.05$);
- high statistically significant positive (direct) correlation between the levels of “situational anxiety” and the scales of physical aggression, verbal aggression, indirect aggression, suspicion, resentment, aggression index, hostility index ($p \leq 0.01$);
- low statistically significant positive (direct) correlation between the levels of “personality anxiety” and the scales of negativism, irritation, guilt ($p \geq 0.05$).
- high statistically significant positive (direct) correlation between the levels of “personality anxiety” and the scales of physical aggression, verbal aggression, indirect aggression, suspicion, resentment, aggression index, hostility index ($p \leq 0.01$).

The obtained results show that the higher the respondents' scores on the anxiety level scales, the higher the scores on the aggression level scales, and vice versa.

Thus, anxiety as an emotional reaction to a stressful situation is a catalyst for the manifestation of aggression as a behavioral act in younger adolescents. The higher the level of anxiety, the higher the level of aggression. The fact revealed in the sample of subjects opens possibilities of psychological and pedagogical correction of aggressive behavior of younger adolescents, relying on the correction of situational and personal anxiety.

In the process of discussion, let us immediately emphasize the influence of individual differences on the ability to acquire and extinguish the characteristics under study. This has already been revealed in previous research (Kuhn, M., Mertens, G. et al. 2016 [17]). Other authors recommend using existing assessments of social interaction anxiety scales (Thompson T., Kaminska M., et al 2019 [30]); self-concept of troubled adolescents (Belopolskaya N.L., Ivanova S.R. et al 2019 [4]).

However, the contribution of individual differences in the development of psychological and pedagogical technologies studying the relationship between anxiety and aggressive behavior of the younger generation remains largely unexplored to date.

We did not see the completeness of the account of the investigated relationships in several other research studies, the subject of which were also behavioral correlates (Nelson D.A., Burner K.C. et al. 2016 [23]). The research instruments originally developed for USA subjects worked well in Russia. Results regarding aggression were generally consistent with previous research involving American and Italian children. Our results further challenge the notion that situational and personality anxiety inevitably cause guilt.

Often, aggressive behavior in younger adolescents has a function as a protest against misunderstanding of adults, insufficient recognition of their position in society, their own opinion, as well as increased levels of anxiety and difficulties in satisfying their needs. Also, aggressive behavior is a marker of communicative and prosocial norms accepted in reference adolescent social groups. And in this regard, we note similar findings of other researchers (Zhang Q., Cao Y. et al. 2020 [33]), who explained how prosocial models of cartoons influence aggressive behavior already from preschool age. Children who watched prosocial cartoons showed lower aggressive behaviors than those who did not watch cartoons. Specifically, watching prosocial cartoons reduced aggressive behavior more in boys than in girls.

Behavioral correlations with anxiety suggest that higher levels of anxiety may lead to more dangerous behaviors (Barnard, M.P. Chapman, P. et al. 2018 [2]), leading to speculation about the types of behaviors that may need to be more deeply studied in those who exhibit high levels of anxiety.

4 Conclusion

Thus, aggressive behavior is understood both as a destructive, malicious influence and as a manifestation of activity that makes it possible to achieve goals and master potential possibilities. Anxiety also has its destructive side and is understood in this way as a personal characteristic. Situational anxiety, in turn, is a reaction to the situation, which can be excessive if a person has high personal anxiety. Further, the paper investigates the mechanism of interrelation between these mental phenomena in theoretical aspect, provides results analysis of the empirical research of the studied interrelation in the younger adolescence. Anxiety can act as a determinant of aggressive behavior against the background of reduced self-confidence, exhaustion from prolonged psychoemotional stress, suppression of aggressive impulses.

The results of the conducted research showed the following: the current levels of anxiety and aggressive behavior in the sample of subjects were measured, the number of subjects with expressed personal and situational anxiety, for whom a stressful situation can be a significant stimulus, was found out.

Close direct correlations were found between the indicators of aggressive behavior and situational and personal anxiety. Negativism and guilt were least connected with situational and personal anxiety, and the closest correlations were found between the indicators of anxiety and “physical aggression”, “verbal aggression”, “indirect aggression”, “suspicion”, “resentment”, “physical aggression”, “verbal aggression”, “indirect aggression”, “suspicion”, “resentment”. The obtained results make it possible to assume that psychological and pedagogical correction of situational and personality anxiety will help to reduce the increased level of aggressive behavior in younger adolescents. Psychological work with aggressive manifestations in the key of forming the skill of constructive response, in turn, can reduce situational, and subsequently more stable personal anxiety.

The conducted research with the help of selected psychological and pedagogical technologies studying the relationship between anxiety and aggressive behavior of the younger generation (on the example of younger teenagers) makes it possible to judge the nature of these relationships and the need to take them into account in the practice of education and training.

The prevalence of the average level of aggressiveness should not reassure us, because in appropriate conditions it can quickly become high. Therefore, we recommend practitioners to conduct rhythmic monitoring of this package of diagnostics.

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