PROGNOSTIC COMPETENCE AND TENDENCY TO DEVIANT BEHAVIOR OF STUDENTS DEPENDING ON THE LEVEL OF SUBJECTIVE CONTROL

Anna I. Akhmetzyanova¹ and Tatiana V. Artemyeva¹

Analysis of studies on the phenomenon of anticipation (prognostic competence) shows that it arises as a systematically integral progress in a real human activities and it is one of the most important components of the regulation mechanism of this activity (including the behavior in general). The problem of prognostic competence in the study of the psychological content of deviant behavior has not received the proper scientific coverage. That is why the aim of this work was to study the propensity to deviant behavior and prognostic competence of bachelor students with different level of subjective control who studied in higher educational institutions. The study revealed that the tendency to oppose personal norms and values to the group is related to the failure to respond with time and spatial anticipation. Failure to detect the connection between your own actions and the important events of your life, in the formation of personal activities, in relationships within the team, the desire to control their development leads to the active attempts to destroy reality and to change it according to your own attitude and values which is also correlated with the lack of ability to manage your own movements and to predict the spatial characteristics of the environment.

Key words: students, prognostic competence, subjective control, deviant behavior.

INTRODUCTION

The study of the problem of deviant behavior, of the actions that are contrary to the socially accepted norms and that are manifested in the form of imbalance of the mental processes, the inability to adapt, violation of the process of self-actualization or of the evasion of moral and aesthetic control over their own behavior is one of the important and up-to-date tasks of psychology and pedagogics. It leads to the blocking of personal growth that is a consequence and sometimes it is the purpose of deviant behavior. A person consciously or unconsciously tends to destroy his self-value, deprives himself of uniqueness and does not allow realizing his potential (Mendelevich, 2005). The basic researches of deviations are held within the framework of differential psychology, the study of nature as a component of personality and of clinical psychology, the study of pathological development of the character. Various sociological and psychological classifications of deviations and different types of character accentuation and psychopathy are developed (Belicheva, 1994; Kovalev, 1985; Lichko, 2010; Rean, 2013). Accentuated or pathological behavior as an integral education, representing the complex structure of emotional-volitional, motivational communicative features is considered as the

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A large number of empirical studies is devoted to the connection between deviations and features of parent-child relations, marital relations, family education and family situation in general, to the students’ maladjustment (Artemyeva, 2013), related to the lack of formation of educational activity and educational communication (Kondrashev, 1997), to the relationship among peers, to the determination of the subjective characteristics of the deviant behavior and other psychological (Korolenko, 2012) and socially-psychological factors (Kiseljova, 2007; Kudrjavcev, 2002; Popov, 1991; Surovegina, 2009; Shestopalova, 2003; Vaskje, 2009).

The leading elements of the mechanism of mental regulation of behavior and activity are the anticipatory processes, which provide the formation of the purpose, planning and programming of behavior and activity, which are included into the decision-making processes, processes of current control and communicative acts.

The anticipation as the inherent process of mental reflection includes not only the effects of time and spatial preemption of events but also the selectivity of environmental impacts, direction of activity and behavior (Lomov, 1980). In modern foreign studies anticipation is viewed not only as ability to assess the increasing risk and further possibility of changing the strategy of individuals’ behavior, which depends on the strength of anticipatory emotions and of the severity of the risk (Sheeran, Harris, & Epton, 2014); but also as a possibility of planning your own actions towards the actions of another person during the communication (Óëüÿíîâà, 2013). However, anticipatory activity of individuals with deviant behavior is deprived of attention in psychological researches. The tendency to break the rules and regulations, depending on the properties of the individual to attribute their successes or failures only to internal or external factors, is not studied.

METHODS OF RESEARCH

Aim of the Study
The aim of this work is to study the tendency of the deviant behavior of the students that are connected with their level of subjective control and prognostic competence (anticipatory competence).

Research questions
We proceeded from the assumption that the imperfection of mechanisms of anticipation and external locus of subjective control play a significant role in the process of students’ deviant behavior formation.
Methods

The following methodologies were used to achieve this goal: the questionnaire ‘Tendency to deviant behavior’, (Klejberg and Oryol, 2004); the questionnaire ‘Level of subjective control’ (methods of J. Rotter 1993) the adaptation of E.F. Bazhina, S.A. Golynkina and A.M. Etkind); anticipated viability (prognostic competence) test of V.D. Mendelevich (2003).

The experimentally-psychological research was conducted on the base of Kazan Federal University («Logopedics», «Special psychology» and «Psychology» bachelor degree programs); Academy of social education («Psychology of education» bachelor degree program), Kazan National Research Technological University («Nanoengineering» bachelor degree program).

Experimental group consisted of 257 students of 2nd- 4th year of education, of whom 89 were male and 168 were female.

Procedure

Testing was conducted on a voluntary basis and individually. All the tests were consistently shown to the students. The answers were filled in the form by them individually.

RESULTS AND DISCUSSION

The processing and the analysis of the research were performed using the estimates of the relationship between indicators with the help of the correlation analysis. (Pearson’s product-moment correlation coefficient). The analysis was made of those indicators that discovered the relationship with other indicators on the level of reliability that was not lower than p < .01 and p < .001.

All the results of current research are shown in the table 1. The tendency to deviant behavior correlates with the level of subjective control and prognostic competence in a sample of students.

<table>
<thead>
<tr>
<th>Scales</th>
<th>9</th>
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<tr>
<td>General internality</td>
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<td>Spatial AC</td>
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<td>Time AC</td>
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Note: (R) indicates reverse keyed items.

** p < .01.

*** p < .001.
The signs of the indicators which are studied according to the following methods are: prognostic competence test’s scales (prognostic competence; 9 – spatial AC, 10 - time AC; questionnaire scales ‘Tendency to the deviant behavior’ of Oryol A. N.: 11- the tendency to overcome the norms and rules, 12, is the tendency to addictive behavior, 13 – the tendency to self-injurious and self-destructive development, 14 – the tendency to aggression and violence, 15 – volitional control of emotional reactions, 16 – the tendency to delinquent behavior.

The study revealed that the tendency to overcome the norms and rules correlates with spatial competence \( r = -.26, p < .01 \) and time prognostic competence \( r = -.20, p < .01 \). The tendency to oppose your own norms and values to the group, the tendency to overcome the conventional norms and patterns of behavior is connected with the failure to respond with time-spatial anticipation.

The tendency to addictive behavior correlates with the time prognostic competence \( r = -.21, p < .01 \). The tendency to escape from reality by changing your mental state by taking certain substances or fixing your attention on a particular activity is related to the inability to allocate your time properly.

The tendency to self-injurious and self-destructive behavior correlates with the time prognostic competence \( r = -.21, p < .01 \) and with general internality \( r = -.19, p < .01 \). The inability to see the connection between your own actions and meaningful life events and to control their development is connected with the lowest value of your own life, with propensity to risk, with strong need for thrills, as well as combined with the inability to apportion your personal time properly.

The tendency to aggression and violence correlates with the general internality \( r = -.20, p < .01 \), internality in the fields of industrial relations \( r = -.20, p < .01 \), in the fields of achievements \( r = -.16, p < .01 \), time prognostic competence \( r = -.17, p < .01 \). The inability to see the connection between your own actions and meaningful life events, to organize your own activity, relations within the team, in the sphere of achievements and the inability to control its development leads to the inability to allocate your time properly and to the aggressive orientation of individual in relations with other individuals, to the tendency to solve the problem with the help of violence and humiliation of your partner as a mean of stabilizing your own self-esteem.

The volitional control of emotional reactions correlates with the general internality \( r = -.23, p < .01 \), spatial competence \( r = -.18, p < .01 \), time prognostic competence \( r = -.18, p < .01 \), internality in the fields of industrial relations \( r = -.17, p < .01 \), in the fields of achievements \( r = -.16, p < .01 \). This suggests that the ability to see the connection between your own actions and meaningful life events, to manage your own activities, to control relations within the team and their development as well as the ability to respond to spatial-time preemption stimulates the tendency to control the behavioral manifestations of the emotional reactions.
The scale of volitional control of emotional reactions detects the greatest number of statistically significant correlations with the correlations of the level of subjective control in various spheres of life and prognostic competence.

The tendency to delinquent behavior correlates with the general internality \((r = - .21, p < .001)\), time \((r = - .20, p < .01)\), spatial prognostic competence \((r = - .19, p < .01)\), the internality in the fields of industrial relations \((r = -.18, p < .01)\). The inability to see the connection between your own actions and meaningful life events, to manage your own activity, to control relations within the team and their development leads to the active attempts to destroy reality, to change it according to your personal attitude and values. It is also related to the lack of ability to coordinate your own movements and to predict the spatial environmental characteristics.

The correlations of spatial prognostic competence with internality in the fields of achievements \((r = .18, p < .01)\) and general internality \((r = .17, p < .01)\) were revealed in current sample. The ability to see the connection between your own actions and meaningful life events, attributing your success and achievements to circumstances or to the help of other people is related to the lack of ability to predict spatial environmental characteristics and your own physical activity.

Correlation analysis revealed a direct dependence of time prognostic competence with internality in the fields of achievements \((r = .20, p < .001)\) and general internality \((r = .16, p < .01)\). The irresponsibility for significant life events and attributing your own successes and achievements to circumstances or the help of others is due to underdeveloped ability to apportion of your own time properly.

Then the sample was divided into two groups according to the gender. The correlation analysis in order to determine the distribution of relationships depending on gender differences was conducted.

According to the results of correlation analysis, the following features of the studied indicators among male students were revealed.

The tendency to aggression and violence finds a direct correlation with personal-situational prognostic competence \((r = .29, p < .01)\). This suggests that the ability to predict the course of events with high probability and to predict the development of situations and your own reactions stimulates an aggressive orientation of students in relationship with others. This pattern cannot be explained by the cause-and-effect link between current phenomena. The action of some other factor that is involved in the prediction of the social environment and aggressive behavior is also possible.

The tendency to delinquent behavior finds an inverse relationship with spatial prognostic competence \((r = - .31, p < .01)\). The lack of motor presetting, orientation in space, the low level of coordination of your own movements that is related to the attempts of altering reality for yourself or to benefit from violating the norms of social behavior.
The structural organization of the studied indicators among female students was also revealed. The results are presented in table 2. The tendency to deviant behavior correlates with the level of subjective control and prognostic competence in the surveyed sample.

**TABLE 2: THE COEFFICIENTS OF CORRELATION OF INDICATORS OF TENDENCY TO DEVIAN'T BEHAVIOR AND PROGNOSTIC COMPETENCE AND THE LEVEL OF SUBJECTIVE CONTROL AMONG FEMALE STUDENTS**

<table>
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<th>Scales</th>
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<td>Internality in the fields of achievements</td>
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<td>-.22**</td>
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<td>.25**</td>
<td>-.24***</td>
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<td>Internality in the fields of family relations</td>
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<td>-.21**</td>
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<tr>
<td>Internality in the fields of production achievements</td>
<td></td>
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<td>-.24**</td>
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<td>Spatial AC</td>
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<td>-.30**</td>
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<tr>
<td>Time AC</td>
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| **Note:** (R) indicates reverse keyed items. **p < .01. ***p < .001.**

The designation of the indicators which are studied according to the following methods is: prognostic competence test’s scales (prognostic competence; 10 – time AC; questionnaire scales ‘Tendency to the deviant behavior’ of Oryol A. N. (2004): 11 – the tendency to overcome the norms and rules, 12 – the tendency to addictive behavior, 13 – o self-destructive and self-injurious development, 14 – the tendency to aggression and violence, 15 – volitional control of emotional reactions, 16 – the tendency to delinquent behavior.

According to the results of correlation analysis, the following features of the studied indicators structure among female students are revealed.

The tendency to break the rules and regulations finds an inverse relationship with spatial (r = -.30, p < .01) and time prognostic competence (r = -.30, p < .01). Underdeveloped ability to respond with spatial-time preemption stimulates the denial of accepted norms and values, patterns of behavior.

The tendency to addictive behavior finds an inverse relation with the time prognostic competence (r = -.27, p < .001), general internality (r = -.25, p < .01), internality in the fields of industrial relations (r = -.24, p < .01). The inability to see the connection between your own actions and significant life events, to manage your own activity, to control relations and their development within the team as well as insufficiently developed ability to predict and to allocate your time properly are connected with the tendency to escape reality by changing your own mental state taking certain substances or fixing attention on a particular activity.
PROGNOSTIC COMPETENCE AND TENDENCY TO DEVIANT...

The tendency to self-injurious and self-destructive behavior finds an inverse relationship with the time prognostic competence \( r = -0.26, p < 0.01 \) and with general internality \( r = -0.22, p < 0.01 \), internality in the field of achievement \( r = -0.21, p < 0.01 \). The inability to see the connection between your own actions and meaningful life events, attributing your own successes and achievements to circumstances or the help of others, underdeveloped ability to adequate apportion of your own time provokes the actions aimed to destruct personality, which may be connected with the low value of your own life and the tendency to the risk.

The tendency to aggression and violence finds the inverse relation with the general internality \( r = -0.25, p < 0.01 \), internality in the field of achievements \( r = -0.25, p < 0.01 \), internality in the field of industrial relations \( r = -0.23, p < 0.01 \). The inability to see the connection between your own actions and significant life events, to organize your own activity, relations within the team, in the sphere of achievements and the inability to control its development leads to the aggressive orientation of individual in relations with other individuals, to the tendency to solve the problem with the help of violence and humiliation of your partner as a mean of stabilizing your own self-esteem.

The volitional control of emotional reactions finds an inverse relation with the general internality \( r = -0.24, p < 0.001 \), the internality in the sphere of family relations \( r = -0.21, p < 0.01 \), in the field of achievements \( r = -0.20, p < 0.01 \). The difficulties which appear in process of connection your own actions and significant life events, to control its development, irresponsibility for significant events in your family relations, attributing your own successes and achievements to circumstances or the help of others is related to the law self-control in behavioral expression of emotional reactions.

The tendency to delinquent behavior finds an inverse relation with general internality \( r = -0.22, p < 0.01 \). The inability to see the connection between your own actions and significant life events, to control its development is combined with the active attempts to destroy reality, by changing it according to your own attitudes and values.

Then, the participants with offences were selected in our sample. All the results of correlation analysis are presented in table 3.

**TABLE 3: THE COEFFICIENTS OF CORRELATION OF PROPENSITY INDICATORS FOR DEVIANT BEHAVIOR AND ANTICIPATIONAL CONSISTENCY OF STUDENT-OFFENDERS**

<table>
<thead>
<tr>
<th>Scales</th>
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<tbody>
<tr>
<td>Self-situational prognostic competence</td>
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<tr>
<td>Spatial prognostic competence</td>
<td>-.38**</td>
<td>-.35**</td>
<td>-.33**</td>
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</tr>
</tbody>
</table>

*Note: (R) indicates reverse keyed items.*

** p < .01.

*** p < .001.
The signs of the indicators which are studied according to the following methods are: questionnaire scales ‘Tendency to the deviant behavior’ of Oryol A.N.: 11 – the tendency to overcome rules and regulations, 14 – the tendency to aggression and violence, 15 – the volitional control of emotional reactions, 16 – the tendency to delinquent behavior.

The correlation analysis finds out that the tendency to break the rules and regulations discovers an inverse relationship with the spatial prognostic competence (r = - .38, p < .001). The underdeveloped ability to predict spatial characteristics of environment and personal motor activity is related to denial of accepted rules and regulations, behavioral patterns.

The tendency to aggression and violence finds a direct correlation with personal-situational prognostic competence (r = .31, p < .01). This suggests that the ability to predict the course of events with high probability, to predict the development of situations and your own reactions stimulates an aggressive orientation of individual in relationship with others. This connection is nonlinear in nature and cannot be explained by cause-and-effect relationship between these phenomena.

The action of some other factor that is involved in the prediction of the social environment and aggressive behavior is also possible.

The volitional control of emotional reactions finds an inverse relationship with spatial prognostic competence (r = - .35, p < .01). This suggests that the ability to motor presetting, to orientation in space, high level of coordination of personal movements stimulates the tendency to control behavioral manifestations of emotional reactions.

The tendency to delinquent behavior finds an inverse relationship with spatial prognostic competence (r = - .33, p < .01). The underdeveloped ability to predict spatial characteristics of environment and personal motor activity is combined with the active attempts to destroy reality, by changing it according to your own attitudes and values.

Then the group of students with offences was divided into two according to the gender. The correlation analysis in order to determine the distribution of relationships depending on gender differences was conducted.

The inverse correlation relationship of self-situational prognostic competence and internality in the field of family relations among male students with offences was discovered (r = .431, p < .01). This suggests that irresponsibility for meaningful events in family relations provokes an individual to make some efforts to prediction of behavior of other people that contributes to the development of self-situational prediction. This pattern cannot be explained by cause-and-effect relationship between these phenomena. The action of some other factor that is involved in the prediction of the social environment and aggressive behavior is also possible.

The tendency to self-destructive and self-injurious behavior with internality in the field of achievements (r = - .49, p < .01) among female students was
discovered. This suggests that attributing student’s own successes and achievements to the help of others or to the various circumstances provokes some actions, which are directed to the destruction of personality.

A number of researchers studied the prognostic competence of individuals who were suffering from neurotic, psychosomatic, speech disorders (Akhmetzyanova, 2014, 2015). It has been proven that the imperfection of prognostic mechanisms played an important role in the formation process of neurotic, psychosomatic, speech disorders and drug addicted (Mendelevich, 2005; Popov, 1991; Dalbert, 2007).

The development of diagnostic tools which help to identify people’s tendency to realization of various forms of deviant behavior is conducted (Belicheva, 1994; Homich, 2005; Klejberg, 2003; Mendelevich, 2002; Snegireva, 1978; Zmanovskaja, 2007). Although the comprehensive studies on the relationship between deviant behavior and prognostic competence with the level of subjective control were not conducted. The study revealed that the tendency to the deviant behavior is related to the subjective level and to the prognostic competence.

The feeling of being a passive object of the actions of others or external circumstances in meaningful and positive situations, in the industrial relations, underdeveloped ability to respond to them with spatial-time anticipation lead to the various forms of deviant behavior. It is also related to the low level of volitional control of emotional reactions. In addition, such inability to act with spatial-time anticipation is connected with the external type of locus of control in the sphere of meaningful and positive life events.

CONCLUSION

Underdeveloped spatial prognostic competence of male students provokes their willingness to implement delinquent behavior, whereas the self-situational prognostic competence stimulates the aggressive orientation of their personality. The last correlation requires further research because it cannot be explained by the cause-and-effect relationship.

The direction of the locus of control toward the externality factor in important and positive events, in family and industrial relations of female students is combined with underdeveloped ability to respond to them with spatial-time preemption and provokes various types of deviant behavior and low level of volitional control of personal emotional reactions.

The tendency to deviant behavior among students with offences is determined by spatial-time prognostic failure and is closely related to the level of subjective control.

Externality in the sphere of achievements among female students with offences provokes their tendency to the somatization of anxiety, to the realization of guilt complex in behavior that is due to the state of prognostic competence.
The development of diagnostic tools that can identify the propensity of teenagers and adults to realization of various types of deviant behavior, the development of the scheme of deviant behavior observations for teachers, technology of studying of adapted individual and its entourage are rather promising tendencies.

Acknowledgments

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