

VI International Forum on Teacher Education

# Strategies of Coping Behavior as Markers of Adolescents' Proneness to Internet-Addiction

Ekaterina G. Shubnikova\*

*1. Yakovlev Chuvash State Pedagogical University, 428000, Cheboksary (Russia), 38 K. Marx street,  
ivsuf@rambler.ru*

---

## Abstract

The article considers the current stage in the development of preventive pedagogical activity by means of a new term – pedagogical prevention of addictive behavior in educational environment. It shows that adolescents' unproductive coping behavior strategies can become the markers of addictive behavior at the stage of primary prevention.

The purpose of this article is to explore the possibilities of psychodiagnostics Internet-addictive behavior among pupils.

The main research methods are pedagogical experiment, monitoring, testing, conversation, and statistical methods for the processing of the research results.

The hypothesis of this study is the assumption that the phenomenon of Internet-addiction as one of the types of addictive behavior of adolescents is characterized by a high level of use of unproductive coping strategies. The paper presents the results of an experimental study conducted in the educational organization of the city of Cheboksary of the Chuvash Republic.

The obtained results state that both a high level of development of productive coping strategies and personal resources in adolescents are the markers of any type of addictive behavior, including Internet addiction, at the level of primary pedagogical prevention.

The article has theoretical and practical significance for teachers, social workers and psychologists, engaged in the development and implementation of educational programs of pedagogical prevention of Internet-addictive behavior in the educational environment.

*Keywords:* Internet-addiction, addictive behavior, pedagogical prevention, coping behavior strategies.

© 2020 Ekaterina G. Shubnikova

This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Published by Kazan federal university and peer-reviewed under responsibility of IFTE-2020 (VI International Forum on Teacher Education)

---

\* Corresponding author. E-mail: ivsuf@rambler.ru

## **Introduction**

Domestic pedagogy still pays little attention to the study of such types of children's and youth's deviant behavior as smoking, alcoholism, drug addiction and other deviations, and, which is most important, little attention is paid to primary prevention of the above-mentioned deviations. Only recently, the textbooks on social pedagogy and specialist literature on preventive activities in educational environment have begun to discuss the issues of pedagogical prevention of deviant behavior. However, it should be noted that since the 90s of the 20th century, there begins the development of preventive pedagogy and its methodological and methodical bases. The subject of preventive pedagogy is the ways and methods of preventing social deviations in educational environment (Shubnikova, 2014).

The peculiarity of the first stage in the formation of pedagogical prevention of addictions is that attention was paid to various studies of its specific areas (alcoholism, drug addiction, crimes and offenses), without analyzing the unified theoretical foundations and laws of preventive activities (Shubnikova, 2013; Zeleeva & Shubnikova, 2016).

All this determines the relevance of further development and, above all, the introduction of technologies and programs for pedagogical prevention of addiction behavior of children and youth in educational environment (Shubnikova, 2015; Shubnikova, 2018).

## **Purpose and objectives of the study**

The purpose of this article is to explore the possibilities of psychodiagnostics Internet-addictive behavior among pupils, as well as the need to update pedagogical prevention of addictive behavior in the educational environment.

The hypothesis of this study is the assumption that the phenomenon of Internet-addiction as one of the types of addictive behavior of adolescents is characterized by a high level of use of unproductive coping strategies.

## **Literature review**

The adoption of the 2000 «Concept for Prevention of Substance Abuse in Educational Environment» was an important step in development of preventive activities. This concept does not employ the term «pedagogical prevention» in its conceptual apparatus. However, the team of authors led by Pankov (2001)

pointed out some serious problems in taking primary, secondary and tertiary prevention in educational environment. The peculiarity of this stage was the change in the concept «prevention of drug abuse» to the category «prevention of substance abuse». This predetermined the expansion of the object area of preventive pedagogy, and the inclusion into it of not only illegal narcotic substances, but also legal ones (alcohol, nicotine), which are much more likely to cause addictive behavior.

These days, at the stage of primary pedagogical prevention, there is no need to develop various programs for prevention of gambling, Internet addiction, and the use of drugs, nicotine, smoking mixtures, and alcohol. The main and single goal of primary pedagogical prevention of all types of addictive behavior is to reduce risk factors by expanding life competencies of children and adolescents, developing active strategies for resolving problems, personal properties and qualities (resources) that help them to effectively cope with difficult life situations (Mendelevich, 2003; Shubnikova et al., 2017).

Basing on a comprehensive and systematic approach in the «Concept for Prevention of Substance Abuse», there was proposed the development of a comprehensive system of anti-drug prevention based on a single set of educational, social and medical measures for primary, secondary and tertiary preventive activities in respect to legal and illegal psychoactive substances.

The adoption of the «Concept for Prevention of Psychoactive Substances Use in Educational Environment» (Ministry of Education and Science of the Russian Federation, 2011) can be considered the beginning of the third stage in the development of preventive pedagogical activity. The authors of the concept stress that primary prevention of psychoactive substances use is the priority direction of preventive activity in educational environment. They pay particular attention to pedagogical prevention which is the main structural and substantive element of the system of prevention of psychoactive substances. Strategic importance of this activity for the national security of the state and the inefficient prevention of psychoactive substances use in educational environment conditioned the introduction of the term of pedagogical prevention and filling it with new content (Shubnikova, 2015; Shubnikova, 2018).

In our opinion, it is necessary to expand the conceptual theoretical model of coping prevention of psychoactive substances addiction, developed by Sirota and Yaltonsky (2003). Although initially it was designated as a conceptual model of coping psychoprophylaxis of adolescents psychosocial disorders (Sirota & Yaltonsky, 2001). This model can be used to prevent any kind of addictive behavior among adolescents.

Expansion of the coping prevention model for all types of addiction allows us not to disperse its efforts on certain areas of prevention (drug addiction, alcoholism, smoking, internet-addiction, gambling) and to

achieve a high degree of efficiency of pedagogical prevention of addictive behavior in the educational environment on the basis of the formation of the teenagers' resilience (Shubnikova, 2013).

The value of personal resources and the adaptive strategies of coping behavior for preventing of Internet-addiction are confirmed by research of psychologists and narcologists.

Adolescents who have difficulties in real life communication use the Internet as a means to build communication in virtual life and, thus, satisfy their need for intimacy. High excitability, disinhibition, and low ability to self-control of emotions and behavior increase the risk of Internet dependence. Emotional instability, self-doubt, impulsiveness, tension, and anxiety are associated with an increased risk of the development of Internet-addiction behavior. Basically, risk factors for the development of Internet-addiction in adolescents are determined by their personal characteristics. Those personal characteristics can be eagerness for new experiences, emotional estrangement, antisocial coping strategies, low communicative competence, maladaptation, aggressiveness, increased anxiety, etc.

Lack of communicative competence, limited opportunities for real life communication can also result in Internet addictive disorder. Internet addiction arises from unfulfilled needs outside the virtual reality. If communicative abilities at this age are not formed well enough, and adolescents have difficulty communicating with their peers, they begin to communicate virtually, since virtual communication is characterized by anonymity, invisibility, sense of security, limited sensory experience, difficulty in expressing emotions, and Internet slang.

### **Methodology**

The hypothesis of this study is the assumption that the phenomenon of Internet-addiction as one of the types of addictive behavior of adolescents is characterized by a high level of use of unproductive coping strategies.

The paper presents the results of an experimental study conducted in the educational organization of the city of Cheboksary of the Chuvash Republic. The study involved 26 eighth-graders at the age of 14-15.

Research methods. To test the hypothesis and solve research problems we used a complex of mutually complementary methods: 1) theoretical – analysis of the literature, normative and legislative acts in the field of pro-prevention, study and generalization of innovative pedagogical experience, classification, analysis, synthesis, etc.; 2) empiric – pedagogical supervision; psychodiagnostic methods.

Psychodiagnostic methods. The first stage of the experiment employed the Chen Internet Addiction Scale (CIAS) adapted by Malygin et al. (2011). The second stage of the study employed the «Copying Behavior in Stressful Situations» method by Endler and Parker, which was adapted by Kryukova & Kuftyak (2007). The third stage of the study employed the «Communicative and Organizational Abilities» (CBS) method by Sinyavsky & Fedorishin (2017).

## Results

The first stage of the experiment employed the Chen Internet Addiction Scale (CIAS) adapted by Malygin et al. (2011). The CIAS consists of 26 questions and includes 5 rating scales:

- 1) compulsive symptoms scale: inability to resist the urge to use the Internet;
- 2) mood and physical symptoms scale: feeling of discomfort if one is to stop using the Internet for a certain period of time;
- 3) tolerance scale: a noticeable increase in the amount of time that one needs to spend on the Internet in order to achieve satisfaction;
- 4) intrapersonal and health problems scale: periodic or permanent physical, social, professional or psychological problems that are caused by the use of the Internet;
- 5) time management scale: inability to control the amount of time spent on the Internet, which leads to lack of sleep, malnutrition, feeling tired during the day.

In addition to the scale rating, they offer 2 types of over-scale criteria – integral (key) symptoms of the Internet addiction itself, including the first 3 scales and the criterion of negative consequences of using the Internet (the latter 2 scales). The sum of all the scales or the total score is an integral indicator, which is a general indicator of Internet-addiction behavior.

Based on the results of the initial analysis and adaptation, the scientists propose the following patterns of Internet-addiction behavior according to the Chen Scale:

1. Minimum risk of Internet-addiction behavior (group A) – goals for the future, which determine the orientation of the individual and time perspective. Such people perceive the process of their own life as filled with emotions and feelings, fascinating and interesting; they are satisfied with their past, feel they

have lived a productive life; consider themselves free to choose how to build their lives relying on their own goals and beliefs; think that people are capable of managing their lives, and are free in making decisions and turning them into reality.

2. Proneness to Internet-addiction behavior (group B) is characterized by an increase in the amount of time spent on the Internet; inability to control the Internet usage; fatigue, lethargy turning into depression during the periods when one stops using the Internet; extension of the Internet sessions to absurdly long periods of time; risk of losing social connections, vital interests (or interest in learning); deceiving parents, teachers in order to hide their interest in the Internet; using the Internet as a way to escape from life and problems; euphoria while staying online.

3. Pronounced and stable pattern of Internet-addiction behavior (group C) is distinguished by the following indicators: people tend to live in the past and present, without thinking about their future; they are dissatisfied with their life at the moment; they assess their lives as unproductive and ineffective; they do not believe that they are able to be in control of the events in their lives; they are confident that people are not able to consciously control their own lives, and think there is no freedom of choice (Malygin et al., 2011).

The results of the study reveal that only 10 students (38% of the respondents) showed a minimal risk of Internet-addiction behavior. Such people perceive the process of their own life as filled with emotions and feelings, exciting and fascinating. They can be off-line without craving for the Internet. 12 teenagers (46% of the respondents) turned out to be prone to develop Internet-addiction behavior. They experience euphoria while they are online. They also tend to spend as much time as possible on the Internet. 4 students (16% of the respondents) proved to have a pronounced and stable pattern of Internet-addiction behavior. Such adolescents are currently dissatisfied with their lives. They evaluate their lives as unproductive; cannot help being online all the time, neglect their own health; suffer from a sharp decrease in sleep duration, and tend to forget to have meals.

The CIAS tools used in the study allowed not only to diagnose the presence and absence of Internet addiction, but also to conduct a qualitative analysis of the severity of symptoms of Internet-addiction behavior: compulsive symptoms, mood and physical symptoms, tolerance, intrapersonal problems and the ability to time management on the web.

The analysis of the scales revealed that the highest indicators were identified on the scales of compulsive symptoms, tolerance, and intrapersonal and health problems. A high percentage of deviations proves that adolescents have difficulty in resisting the desire to access the Internet. They spend more and more time on

computers, tend to stay on the Internet much longer than they intended, sleep less, go online instead of meeting friends, suffer from eating disorders, worry or get upset if they have to stop using the Internet for a while.

The adolescents with Internet-addiction behavior show anxiety and annoyance when the Internet is disconnected or unavailable, need for getting access to the Internet at every opportunity, increased amount of time and effort spent on this type of activity, decreased social activity.

The second stage of the study employed the «Copying Behavior in Stressful Situations» method by Ender and Parker, which was adapted by Kryukova & Kuftyak (2007).

The diagnostic results revealed that 20 students (77% of the respondents) have a low level of problem-oriented coping, 5 students (19% of the respondents) showed an average level of problem-oriented coping, and 1 student (4% of the respondents) demonstrated a high level of problem-oriented coping. The diagnostic results showed that 5 adolescents (19% of the respondents) showed a high level of emotion-oriented coping (EOC), while 13 students (50% of the respondents) proved to have an average level of emotion-oriented coping, and 8 adolescents (31% of the respondents) showed a low level of emotion-oriented coping. According to the diagnostic results, it was found that 5 students (19% of the respondents) have a low level of avoidance-oriented coping, 18 people (69% of the respondents) have an average level of avoidance-oriented coping, and 3 students (12% of the respondents) demonstrated a high level of avoidance-oriented coping.

The third stage of the study employed the «Communicative and Organizational Abilities» (CBS) method by Sinyavsky and Fedorishin (2017).

The analysis of the results showed that 12 students (46% of the respondents) have a low level of communication skills; they tend to worry about any trouble in communication. The level of communication skills of 2 students (8% of the respondents) was well below average. Such students do not seek after communication contexts, and they feel rather uncomfortable in a new team. 8 students (31% of the respondents) showed an average level of communication skill. They strive for communication, but still need to develop their communication skills. 3 people (11% of the respondents) demonstrated a high level of communication skills. They are constantly expanding their social circle and easily make friends. 1 person (4% of the respondents) showed a very high level of communication skills. Such people behave naturally in a new team.

The study also revealed that the adolescents who suffer from Internet addiction disorder have a low level of communication skills. This results in academic decline, poorer adaptation in a new group, decreased emotional well-being.

Schoolchildren communicate on the Internet. Some of them completely replace it with real-life communication with peers. While communicating online, they sometimes forget about live communication, try to make their speech shorter and simpler, lose their individuality. Thus, when expressing emotions, a teenager begins to experience difficulties. Internet-addicted students tend to speak abusive language. They do not treat their interlocutors with respect and ignore the etiquette.

## **Discussions**

To find the correlation between the results, the study employed the Student's Rank Correlation Coefficient. There may be revealed a correlation between avoidance-oriented coping and the pattern of Internet-addiction behavior, since the significance level of their correlation is  $t = 2.6$ . The obtained empirical value is in the zone of significance.

The children who suffer from Internet-addiction disorder are not quite able to solve problems. The more a person depends on the Internet, the more he or she avoids solving problems or denies them, gets irritated and tends to daydream. Such pupils try to get distracted from everyday problems by means of the Internet, they seek solitude, and keep away from troublesome situations.

There was also found a direct correlation between the indicators of avoidance-oriented coping and the level of communication skills at adolescents ( $t = 2.5$ ). The adolescents with a low level of communication skills are more prone to Internet addictive behavior. They strive to escape from problems and reality, experience difficulties in establishing contacts with people, and limit their social circle. If any difficulties arise, such adolescents avoid speaking up about problems and wait for them to pass. Instead of overcoming difficult life situations, they prefer to keep isolated and aloof.

## **Conclusion**

Thus, the hypothesis of the study was confirmed.

This study has revealed that one of the important markers of Internet addiction is a high level of avoidance-oriented coping. Internet-addiction adolescents are the ones who have insufficiently developed personal-environmental coping resources and problem-solving skills. The more a person is addiction on the Internet, the more he or she shies away from solving problems, denies those problems, gets irritated and tends to daydream. Such adolescents try to get distracted from everyday problems by means of the Internet, they seek solitude, and keep away from troublesome situations.



The results obtained state that both a high level of development of productive coping strategies and personal resources in adolescents are the markers of any type of addictive behavior, including Internet-addiction, at the level of primary pedagogical prevention. Thus, the introduction of a unified program for prevention of addiction behavior at adolescents, based on socio-psychological training and aimed at developing productive coping strategies and increasing the level of personal resources at schoolchildren, will increase the efficiency of preventive pedagogical activity in educational organizations.

## References

- Kryukova, T. L., & Kuftyak, E. V. (2007). Questionnaire of ways of coping. *Journal of Practical Psychology*, 3, 93-103.
- Malygin, V. L. (2010) *Internet-dependent behavior of adolescents. Clinic, diagnostics, preventive maintenance*. Moscow: Education Arsenal.
- Malygin, V. L., Feklistov, K. A., Iskandirova, A. S., Antonenko, A. A., Smirnova, E. A., & Khomeriki, N. S. (2011). *Internet-addictive behavior. Criteria and methods of diagnosis*. Moscow: Moscow State Medical-Dental University.
- Mendelevich, V. D. (2003). *Drug addiction and comorbid conduct disorder (psychological and psychiatric aspects)*. Moscow: MEDpress-inform.
- Ministry of Education and Science of the Russian Federation. (September 5, 2011). *The concept of prevention of substance abuse in the educational environment*. Retrieved April 04, 2020, from <https://www.garant.ru/products/ipo/prime/doc/12090282/>
- Pankov, D. D., Rumyantsev, A. G., & Trostanetskaya, G. N. (2001). *Medical and psychological problems of adolescent schoolchildren: Talk to your doctor teacher*. Moscow: APK and PRO.
- Shubnikova, E. G. (2013). Theoretical approaches to studying structural components of resilience of a person as the principles of prevention of addictive behavior. *Russian Journal of Humanities*, 2(1), 14-20.
- Shubnikova, E. G. (2014). Methodological analysis of the approaches and models of addictive behavior prevention in the educational environment. *Social pedagogy in Russia*, 4, 22-29.

- Shubnikova, E. G. (2015). Pedagogical prevention of addictive behavior of children in the educational environment: the use of personal resources. *Social pedagogics in Russia*, 6, 25-30.
- Shubnikova, E. G. (2018). Modern goals and tasks of pedagogical prevention addictive behavior of adolescents. *ASTRA SALVENSIS. Transilvanian Association for the Literature and Culture of Romanian People (ASTRA)*, 6(2), 551-565.
- Shubnikova, E. G., Khuziakmetov, A. N., & Khanolainen, D. P. (2017). Internet-addiction of adolescents: diagnostic problems and pedagogical prevention in the educational environment. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(8), 5261-5271.
- Sirota, N. A., & Yaltonsky, V. M. (2003). *Prevention of drug addiction and alcoholism*. Moscow: Academy.
- Weinstein, A. (2015). Internet-addiction: diagnosis, comorbidity and treatment. *Medical psychology in Russia: an electronic scientific journal*, 4(33).
- Zeleeva, V. P., & Shubnikova, E. G. (2016). Prevention of Addictive Behavior Based on the Formation of Teenagers' Resilience. *The International Journal of Environmental and Science Education (IJESE)*, 11(8), 2015-2023.