The study on the addiction problem on computer online role-playing games of Russian teenagers has of particular importance in connection with the intensive development of computer technology and the Internet. In recent years, computer games impose a certain imprint on the development of modern teenager personality. The main purpose of this article is to review the literature on the problem of addiction on computer games and study the personal characteristics of teenagers with addiction on multiplayer online role-playing games. The article review approaches to the study of addiction on the Internet and computer games, analyzes the results of studies on addiction on computer games, the mechanism of its formation and personal characteristics of gamers. The article describes the results of analysis of personal characteristics of teenagers with high levels of addiction on computer games, analyzes the factor structure of personal characteristics of teenagers with dependence on multiplayer online role-playing games. The article presents data confirming the presence in adolescents with a high level of addiction from multiplayer online role-playing games of personal characteristics that contribute to its formation. At the end of the article conclusions about the importance of research aimed at studying the personal characteristics of gamers and the mechanisms of formation of addiction.

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1. Introduction

Modern society is impossible to imagine without high technologies and the Internet. Every day the influence of the network on everyday life is increasing, there are changes in the psychological, social and cultural characteristics of the individual, there is the formation of new social groups, and all this is reflected in modern society (Young, 1998; Griffiths, Parce, Wood, & Rigbye, 2010; Greenfield, 1999; Vasyagina, 2016).

2. Problem Statement

Research and discussion on addiction on computer games is about the same age as computer games themselves (Bean, Nielsen, van Rooij, & Ferguson, 2017). In 1983, Soper, Barlow, and Miller, the first to describe the addiction from the arcade game Pac-Man by comparing it with dependence on psychoactive substances.

In studies on the characteristics of children and teenagers, the authors (Feng et al., 2003; Chiu, Lee, & Huang, 2004; Vasyagina & Sycheva, 2019) noted the relationship of variables with the video game addiction. Teenagers with video game addiction have more mental and behavioral problems than their peers: higher hostility, low academic performance, a tendency to boredom and tendency to search for thrills.

Ivanov (2000) notes an excessive level of personal anxiety in most users. It links to heightened anxiety with a sense of dissonance between the "I am virtual", which can all, and "I am real", which is a mere mortal person. Analysis of the results of Kolotilova (2009), shows the change in "the image I" among gamers, the distortion of their world picture, the violation in coordinate system of universal values: teenagers take as a given illegal actions and see the criminal characters as ideal, a model to follow. As a result, of excessive enthusiasm for role-playing computer games among teenagers, is a change in self-attitude. They are characterized by low self-confidence, closeness, high internal conflict and self-blame.

Research of mass multiplayer online role-playing games (MMORPG) has a significant interest. It is shown that they are addictive because of the possibility of dating and anonymity (Sánchez-Carbonell, Beranuy, Castellana, Chamarro, & Oberst, 2008; Kuss & Griffiths, 2012). This is because MMORPGs allow a teenager to play with thousands of other people at the same time. The player can create one or more characters (so-called avatars) and on their behalf interact with other players, cooperate, compete. Players constantly communicate through their avatars. This leads to the destruction of identity (Talarn & Carbonell, 2009). In some cases, MMORPG can have a strong negative impact on teenagers. Compared to the players of arcade, console or offline computer games, those who play MMORPG, have much worse physical health, sleep quality, they experience great difficulties in communicating in real life and academic performance degradation (Smyth, 2007).

Research aimed at identifying the causes of addiction on online role-playing games (Allison, Wahlde, Shockley, & Gabbard, 2006; Block, 2007; Griffiths, 2010; Wan & Chiu, 2006a, 2006b) showed that teenagers play online role-playing games in order to escape from problems in real life. These problems were mainly related to lack of friends, difficulties in relationships and dissatisfaction with appearance (Griffiths & Beranuy, 2009).
Smahel, Blinka, and Ledabyl (2008) concluded that the attitude of players to the character can play an important role in the development of addiction on online role-playing games. The emergence of addiction among users contributes to the attitude of the avatar as a more successful person than themselves, and the desire to be like him in real life.

Exploring the mechanism of development of addiction on online role-playing games, Beard (2005) proposes to consider the cognitive-behavioral theory of dependence. During the game, the individual focuses on irrational beliefs, finds excuses to spend more time on the Internet. The basis is the mechanism of classical conditioning, according to which, the online game is not of great importance at the beginning, but can be a pleasure that the user wants to repeat when he has a positive experience of online gaming and communication in it. At the same time, the mechanism of operant conditioning works: fast access to information via the Internet and participation in virtual relationships increase the dependence.

Fomicheva, Shmelev, and Burmistrov (1991), consider the mechanism of formation of game addiction as based on partially unconscious aspirations and needs: departure from reality and acceptance of the role.

So, there are several factors that affect the development of Internet gaming addiction. Especially, there is a personal factor, among them: unformed or unstable psyche, lack of self-control skills, dissatisfaction with real life, the desire to compensate for unrealized life needs make a person more prone to the development of addiction on computer games.

The most dangerous is the teenage period. The unstable hormonal background is superimposed by the lack of attention of parents, self-doubt, lack of communication with peers and problems with learning. Teenagers begin to go into the virtual world. Gaming statistics shows that teenagers identify themselves with the game character, make friends on his behalf and even fall in love. They practically live in virtual reality.

According to many authors, addiction is the absorption of reality by online role-playing, which determines the formation of cognitive, emotional and behavioral characteristics of a teenager causing significant damage in various areas of real life (King, Delfabbro, Griffiths, & Gradisar, 2011; Kuss & Griffiths, 2012). This statement is based on several diagnostic criteria (Griffiths, 2005; Griffiths & Beranuy, 2009; Sánchez-Carbonell et al., 2008). There are two main symptoms: 1. psychological dependence, including attraction, mood change and loss of control; 2. serious adverse effects of addiction. For the diagnosis, it is also necessary to take into account the time during which the symptoms appear. This is due to the novelty effect. Engaging in a new hobby (for example, MMORPG) can lead to the fact that teenagers begin to devote a significant part of their time to it. But even when addiction occurs, the time devoted to the game does not decrease (Sánchez-Carbonell et al., 2008).

The present study is devoted to the research of personal teenager characteristics dependent on online role-playing games.

3. Research Questions

In this study, we tested the following hypothesis: adolescents with dependence on computer games have personality traits that contribute to the formation of addictive behavior.
4. Purpose of the Study

The aim of this study was to study the personal characteristics of adolescents with addiction from multiplayer online role-playing games.

5. Research Methods

At the first stage of the study, we used a questionnaire aimed at determining the level of addiction on computer games.

To determine the typological characteristics of the personality of teenagers, the test RMFPQ was used, which allows to obtain data on three evaluation and eight clinical scales.

In order to study the value sphere of the subjects, we used a questionnaire of terminal values, the application of which allows us to determine the leading values and the most important sphere of life of the subject, designed to implement the prevailing values.

Since the leading activity of a teenager is communication with coevals, we were interested in the personal qualities and behavioral characteristics of students, ensuring their interaction with society. To obtain this information, we used the method of diagnostics of communicative social competence.

In the process of determining the characteristics of communication among teenagers, we used the method of diagnosis of interpersonal relations (Leary, 1957).

The method of diagnostics of motivational structure of Milman (1990), was used by us for diagnostics of the businesslike and hostel orientation of the personality presented by seven scales.

The study of motivation to achieve and avoid failures was carried out using a separate technique, the author of which is Mehrabian A.

We also used the method of life style index (LSI) aimed at identifying the protective mechanisms of the psyches.

The study involved teenagers living in the Sverdlovsk region. The age of the subjects is 14-16 years old. All subjects are students of secondary schools.

6. Findings

Let's move on to the discussion of the results. Based on the questionnaire data, which defines teenage addiction on computer gaming, we separate teenagers under the test on three groups, based on level of addiction: the first group – high level of addiction (40%), the second group – the average level of addiction (10.4%), the third group - low level of addiction (49.6%). In connection with the objectives of the study, only one group with a high level of addiction on computer games.

Further, the data obtained based on the gamers sampling frame were subjected to factor analysis. Factor structure of personal characteristics of teenagers with a high level of gaming addiction on online role-playing games made of six factors the total percentage of variances composed to 71.01 %.

The first factor describing 21.5% of all dispersions. This factor reflects the conflict of the leading value in teenager orientations. It is a consequence of the unformed hierarchical structure of values, typical to the teenager age.
For teenagers it is important to achieve success in different areas. They want to be successful in education and professional sphere, in social and family life, creativity and hobbies, seek a stable financial position that will allow them to increase and maintain their own prestige among coevals. Teenagers seek to acquire new acquaintances, establish friendly relations, improve their status and authority in the group of peers. In order to occupy a place in the micro-society, teenagers tend to stand out, to emphasize their individuality. But, in real communication with peers, the possibility of realizing many needs and values is limited by direct contact, allowing the emergence of situations in which there is a discrepancy between the real and declared qualities. However, this circumstance is almost completely excluded when communicating in an online game. In most cases, communication within the multiplayer online game does not involve the subsequent relations transfer in the physical world, which leaves for user complete freedom in action and expression. This factor can be described as, "self-realization".

The second factor (16,93% of all dispersions). The subjects of this group are distinguished by a high level of intelligence and rational thinking, stability of goals and interests. Teenagers with a high level of addiction on computer games are capable of a long and persistent passion for any idea or activity. They are prone to rivalry, have a high level of claims, the desire to compete and win, show distrust and a desire to escape from external pressure. They are inclined to risk and commit antisocial acts. In most games, there is a system of incentives that encourages gamers to improve their "skill". An even greater opportunity in the implementation of competitive relations give network games, the growth of the user's rating in which compensates for his unrealized ambitions in the real world around him.

Addiction teenagers find it difficult to hide their thoughts and feelings they are very emotional and directly respond to the phenomena of reality, characterized by impatience and rapid change of emotional state. The collision of a teenager with negative experiences, properties of its own personality or unacceptable feelings provokes a strong emotional reaction. They are not able to live and accept a traumatic event. The result of such a reaction is the attribution of unacceptable qualities, thoughts and feelings to other people or surrounding objects by a teenager, accompanied by a splash of verbal or physical aggression, asocial behavior.

Computer game, in this case, acts for the teenager as a substitute object, a means of expressing aggression and emotional stress. The presented factor can be described as "asocial behavior".

The third factor, describing 10,51% of all dispersions. The factor reflects bipolar tendencies evident in the process of interaction of addiction teenagers with other people. On the one hand, teenagers tend to render pressure to subordinate others to their own will, on the other hand they show softness, flexibility and complaisance. Many games combine several lines in their theme, allow to show creative, destructive and search qualities of the user. In connection with the identified trend, we can consider a computer game as a means of implementing these strategies in communication. Computer game gives a teenager the opportunity to be in the center of vents, to assume the desired role, to build their own game play. This factor can be called "domination-cooperation".

The fourth factor describing 9,54 % of all dispersions. Motives of communication and comfort are the leading driving forces of behavior and activity of teenagers. Despite the external alienation, and self-absorption, for addiction teenagers is extremely important to be able to interact with others, have the presence of emotional, friendly relationships. Have the possibility of obtaining material goods, pleasures
and entertainment. In order to implement these motives, teenagers are ready to sacrifice other benefits, control their needs, obey the requirements, comply with the necessary rules and regulations. The presented factor can be described as, "the desire for comfort".

The factor of "creativity" (describes 6.4% of dispersions). Teenagers with internet gaming addiction are attracted by the opportunity to engage in creativity. They strive for self-realization, self-expression, looking for opportunities to change their lives. But, due to shyness, it is difficult for teenagers to implement it in real life. Virtual reality provides the user with huge opportunities for self-realization, the most important of which is the possibility of creativity and presentation of their creative achievements on the network. In the network, teenagers choose their friends, partners, loved ones most often from among those who play the same games. Therefore, in this social environment, each of its representatives acquires a manner of behavior that is peculiar to this narrow circle, but it will seem completely unfamiliar to the members of another social group.

The sixth factor, describing 6.13% of all dispersions. Teenagers with self-esteem do not applied with the image of the ideal "I", in this connection, they show increased commitment and anxiety, their behavior and mood depends on the opinion of the majority and external assessments. Addiction teenagers are tend to reflection, care in the world of dreams and fantasies, they are selective in contacts, original statements and focused on the actualization of their individuality. The above personal qualities, in many ways complicate the adaptation of teenagers to the new situation, point to the vulnerability of their inner world and increase the likelihood of injury when faced with new phenomena, unacceptable for them thoughts and feelings. With the aim of protecting their domestic space, teenagers tend to mask some of the characteristics of the personality by an exaggerated development of opposite tendencies. In this connection, the subjects can demonstrate opposite personal characteristics, such as excessive sociability and openness, swagger, mockery, carelessness. Online games provide an excellent opportunity for this. The creation of virtual images, often very far from reality, is a compensatory mechanism that causes a pronounced internet addiction. The most powerful provoking factor in this case is a set of properties of the internet as a means of communication. Anonymity and the actual impossibility of checking the information provided about your-self, ability to connect in a virtual image real, desired and entirely fictional characterological and other features, stimulate the development of internet addiction in the teenager age group. Network communication allows a teenager to live in the images of his dreams and to carry out within the framework of these images us desired (as impossible in real conditions) communicative activity. This factor can be described as "social disadaptation".

7. Conclusion

Addiction teenagers are characterized by a high level of intelligence, rational thinking, show enthusiasm for ideas, the ability to focus on a long time on any kind of activity. Participants of the experiment are sensitive, anxious, inclined to reflection and imagination, in dealing with people show compliance, responsiveness, patience, on the one hand, demands and competition, on the other. Teenagers are characterized by introversion and orientation to actualization of their individuality, emotional instability, desire for domination and lack of external control, which encourages teenagers to commit antisocial acts.
As the results of the analysis showed, the main contradiction of the gamers personality is that the teenager remains selective in establishing contacts with others, detached, self-oriented, with a high degree of dependence on external assessments and influences, the desire for emotional communication with others. The computer game gives a unique opportunity to establish safe contacts, acquaintances and friendships.

References


