

3/2017

# psychoprevention

## S T U D I E S



**Distribution of resources and sense of purpose in people affected by armed conflict**

*Iwona Niewiadomska, Joanna Chwaszcz, Aneta Mamczura, Agnieszka Palacz-Chrisidis*

**Phenomenology and mechanisms of formation of alcohol dependence in conditions of social stress**

*Vitalii Lunov, Kostiantyn Gaponov*

**Mass-scale dependence on on-line computer role-playing games as a sign of modern information society**

*Tetiana Vasheka, Natalia Tsverava*

**Ethical principles of psychologists' activities represented in the ethical code and views of psychologists and clients**

*Tetiana Yablonska, Natalia Bulatevych*

JOURNAL: **psychoprevention**  
S T U D I E S

**Editor-in-Chief:**

Michał Chwaszcz  
e-mail: sekretariat@ipip.info.pl  
www.ipip.info.pl

**Editorial Board:**

Iwona Niewiadomska, Larisa Didkovska, Robert Laducer, Marc Valleur

**Editorial Team:**

Joanna Chwaszcz, Weronika Augustynowicz, Agnieszka Palacz-Chrisidis

**Reviewers Team:**

RAFAŁ BARTCZUK  
CHERYL DICKSON  
LARISA DIDKOVSKA  
LUCYNA GOLIŃSKA  
MARIE GRALL-BRONNEC  
ELENA HAUGE  
JOLANTA JARCZYŃSKA  
YASSER KHAZAAL  
BERNADETA LELONEK-KULETA  
IWONA NIEWIADOMSKA  
DANUTA RODE

**Statistical Editor:**

Rafał Bartczuk  
Michał Wiechetek

**Text Editor:**

Malwina Staszak

**Picture Editor:**

Zbigniew Kowalczyk

**English Language Editor:**

Małgorzata Osękowska

**Published by:**

Natanaelum Association Institute for  
Psychoprevention and Psychotherapy  
Al. Gen. Wł. Sikorskiego 1/101  
20-814 Lublin  
www.natanaelum.pl  
sekretariat@natanaelum.pl

Copyright © 2017 by **Natanaelum Association Institute**  
**for Psychoprevention and Psychotherapy**

Quarterly Journal

Available on an Open Access basis: Attribution 4.0 International (CC BY 4.0)

## Table of Contents

---

Distribution of resources and sense of purpose in people affected by armed conflict . . . . .	1
<i>Iwona Niewiadomska, Joanna Chwaszcz, Aneta Mamczura, Agnieszka Palacz-Chrisidis</i>	
Phenomenology and mechanisms of formation of alcohol dependence in conditions of social stress . . . . .	10
<i>Vitalii Lunov, Kostiantyn Gaponov</i>	
Mass-scale dependence on on-line computer role-playing games as a sign of modern information society . . . . .	24
<i>Tetiana Vasheka, Natalia Tsverava</i>	
Ethical principles of psychologists' activities represented in the ethical code and views of psychologists and clients . . . . .	33
<i>Tetiana Yablonska, Natalia Bulatevych</i>	



## **Distribution of resources and sense of purpose in people affected by armed conflict**

*Iwona Niewiadomska*

KUL Professor, PhD in Psychology, John Paul II Catholic University of Lublin

*Joanna Chwaszcz*

PhD in Psychology, John Paul II Catholic University of Lublin

*Aneta Mamczura*

Graduated from The John Paul II Catholic University of Lublin with the degree of MA in Psychology

*Agnieszka Palacz-Chrisidis*

MA in Psychology, Assistant Lecturer at the Institute of Psychology, John Paul II Catholic University of Lublin

---

### ABSTRACT

This article presents an analysis of the relationship between the distribution of resources and the sense of purpose in people affected by armed conflicts. The study involved 324 people aged 18 to 74, and the average age was 34 years. The study group are people who have been affected by the recent armed conflict in Ukraine. For the purposes of measurement, we used three research tools, namely Conservation of Resources-Evaluation Questionnaire (COR-E) by S. E. Hobfoll, a Polish adaptation of the Life Attitude Profile - Revised (LAP-R) by R. Klamut, and a personal information questionnaire. It was found that the higher the importance of resources, the stronger the sense of purpose. In addition, loss of resources proved to correlate with sense of purpose. The relationship between resource gains and intentional activity has not been confirmed.

*Keywords:* resources, distribution of resources, purposefulness, intentional action, armed conflict

---

## Introduction

### Conservation of Resources Theory

Steven E. Hobfoll's Conservation of Resources (COR) theory is considered a motivational stress theory. To a significant degree, it lays down the key principles governing human behaviour. What is crucial for the theory is the assumption that "even in situations with no apparent stress, the knowledge of potentially stressful and challenging events in future helps people prepare biologically, socially, cognitively and culturally to face current, past, and future challenges as events which are key to their experience of the world, inner experiences, and biological development of the species" (Witkowska, 2012, p. 19). Hobfoll argues as follows "I will call these things that individuals value RESOURCES. Resources include the objects, conditions, personal characteristics, and energies that are either themselves valued for survival, directly or indirectly, or that serve as a means of achieving these ends. I delimit the range of resources to be resources that are valued by a broad class of individuals and that are seen as highly salient for people in general as well as the self" (Hobfoll, 2006, p. 70).

Hobfoll's deliberations about the importance of resources for coping have led to the formulation of the central tenet of his Conservation of Resources theory, which stipulates that "People strive to obtain, retain and protect those things that they value. I would add to this now that people also endeavour to foster that which they value" (Hobfoll, 2006, p. 71). This tenet suggests that "people focus on obtaining the resources they do not yet have; retain the resources they have; protect their resources when threatened; and foster their resources by positioning themselves so that their resources can be put to best use". Hobfoll elaborates on this central tenet of his COR theory by formulating two primary principles and some secondary corollaries.

Principle 1 is as follows "Resource loss is disproportionately more salient than resource gain" (Hobfoll, 2006, p. 79). This means that for the same levels of gains and losses, the impact of losses is much more powerful. This principle is crucial as it differentiates the COR theory from other concepts of stress. According to COR theory, it is mainly loss or threat of loss that define stress in ontological, ontogenetic and cultural terms. The theory suggests a significantly stronger impact of losses compared to that of gains (Hobfoll, 2006). Loss spirals tend to be immediate and rapid, as a result of which their impact on the individual is profound.

Principle 2 says "People must invest resources in order to protect against resource loss, recover from losses, and gain resources" (Hobfoll, 2006, p. 91). Resources determine what is considered stressful by the individual, and what coping strategies they employ. Resources can be invested either directly or through substitution (Hobfoll, 2006). Direct investments are made on the resource-for-resource basis. Such situations can be observed in many examples of human behaviour, e.g., the individual whose relationship has broken down tries to find a new romantic partner, or, having lost their energy resources, he/she tries to develop a strategy to regain them. Resource investment through substitution, on the other hand, is made using substitute resources. For instance, the failure of a long-term relationship might

motivate the individual to focus on their career in order to become successful in a different area.

In addition, based on his COR theory, Hobfoll provides a set of corollaries that stem from COR principles. Corollary 1 is as follows “Those with greater resources are less vulnerable to resource loss and more capable of orchestrating resource gain. Conversely, those with fewer resources are more vulnerable to resource loss and less capable of achieving resource gain. Moreover, those who lack resources are more likely to experience extreme consequences, as without adequate resource reserves they are less likely to have resources to invest in the wake of initial losses” (Hobfoll, 2006, p. 97). Resource allocation requires resource pooling or having resources at one’s disposal (Witkowska, 2012). Furthermore, it is important to note that stressful situations might involve various challenges, which draw on various resources (Hobfoll, 2006). The COR theory further proposes that people with large resource reservoirs are able to use some of their resources to make gains in other resources (Witkowska, 2012).

Corollary 2 is that “Those who lack resources are not only more vulnerable to resource loss, but that initial loss begets future loss” (Hobfoll, 2006, p. 98). Life stressors can be perceived in two different ways – either as isolated, or as aggregate. The COR theory states that resource loss cycles appear because difficult situations are followed by resource loss. Resource loss is the result of investing new resources to minimise further resource loss (Witkowska, 2012). Loss cycles are characterised by a rapid pace and long-term effects. Scholars see stress as having its source in threats caused by resource loss (Zalta et al., 2016). Individuals try to develop and maintain their resource pools, but in traumatic circumstances losses are rapid and threaten the safety and integrity of the individual.

Corollary 3 is as follows “Because loss and gain are inequivalent, they are not exact opposites and differ in meaningful ways. Corollary 3 states that those who possess resources are more capable of gain, and that initial resource gain begets further gain” (Hobfoll, 2006, p. 99). This suggests that as resources are lost, resource gain cycles become faster, and their impact increases. This change takes place, because in the conditions of loss, efforts that might produce small gains, could, contrary to appearances, create positive expectations and support goal-oriented, or purposeful, action (Witkowska, 2012). By going after gains, individuals very often risk their resources to achieve their goals and aspirations. However, the need to make gains is not as important as the need to compensate for any loss. What is crucial is the so-called ‘resource surplus,’ which makes the individual less vulnerable to loss. Hobfoll (2006) argues that gain cycles can be slower, and have a weaker impact on the individual, than loss cycles.

Corollary 4 is as follows “Corollary 4 posits that those who lack resources are likely to adopt a defensive posture to guard their resources” (Hobfoll, 2006, p. 100). This Corollary explains why people who are poor in resources may utilise denial (Hobfoll, 2006). This defence mechanism allows the individual to cushion the emotional impact of loss, while also conserving their resources. People who are rich in resources do not have to take defensive approaches, but for resource-poor people this is a reasonable coping strategy. Corollary 4 suggests that defensive approach helps conserve a large amount of resources as a reserve in case the individual has to cope with a series of losses in the future.

## Sense of purpose

In literature, the term ‘purposefulness’ is widely used. Tomaszewski (1975) defines ‘purpose’ as an anticipated end result. For Koziol (1988), on the other hand, a purpose, or a goal, is the prospective state of affairs the individual intends to achieve after they take some action. Management-oriented Locke and Latham (1991) define a goal as whatever an employee strives for at work. The most exhaustive definition of a goal is provided by Zaleski, who describes a goal as a cognitively represented state of affairs, which can be achieved, has regulatory value and power, and which the individual strives to achieve through action (Zaleski, 1991). All these definitions show that goals influence human behaviour. Goals help people create and make their future a reality, discover what they are capable of, and give meaning to their actions. Reker (1992) provides two definitions of ‘meaning’. The first definition focuses on the importance of experience and is referred to as ‘inner meaning’. It is associated with recognising, and then giving, subjective, personal meaning to outside-world objects and life experiences. These are the results of purposeful action and participation in life’s events. This definition assumes the activation of such cognitive processes as assessment and evaluation. Outside-world objects and events have specific meanings themselves. Recognising meaning in your personal experiences helps you accept the situation and respond to it appropriately, and, ultimately, take specific action. The other definition relates to life as a whole and is referred to as ‘existential meaning’. The process of making one’s life meaningful takes place in relation to specific experiences and life activities. What is of key importance in this process is the sense of internal stability, belief in the core reasons for one’s existence, and a sense of purpose and direction in life. This approach to defining the concept of meaning addresses the questions of what is the right goal in life and what has value for the individual.

The contemporary understanding of purposeful behaviour suggests that decisions made on the basis of the prospect of achieving a reward are regulated by two constructs, namely the system of habits, which relies on the relationship between stimulus and response, determined by previous reward experiences, and the system of goal-orientation, based on expected outcomes of one’s actions (Solway & Botvinick, 2012; Friedrich & Lengyel, 2016). In order to formulate a new theory about goal-orientation, these scholars drew on approaches developed in neuroscience, animal studies, cognitive and developmental psychology, and learning theories. Basic conclusions from their research were drawn using probability theory (Bayesian model). Their key proposal is that “the brain within an identifiable network of cortical and subcortical structures, implements a probabilistic generative model of reward, and that goal-directed decision making is effected through Bayesian inversion of this model” (Solway & Botnicki, 2012). Similarly, models based on learning algorithms have confirmed the correlations between goal-oriented behaviour and identification of key areas in the brain (Friedrich & Lengyel, 2016).

## Methodology

This study addresses the following research question – What is the relationship between resource distribution and sense of purpose in people affected by armed conflict? In order to answer this question, we formulated three research hypotheses.



**H1:** The stronger the sense of purpose in people affected by armed conflict, the greater the importance of resources.

**H2:** The greater the loss of resources, the weaker the sense of purpose in people affected by armed conflict.

**H3:** The greater the gains in resources, the stronger the sense of purpose in people affected by armed conflict.

The study covered 324 people, aged 18 to 74 ( $M = 34.25$ ;  $SD = 9.85$ ), and was conducted using the methods described below.

### **Conservation of Resources-Evaluation questionnaire by Stevan E. Hobfoll**

This tool is designed to measure how different types of resources are managed. Its scale covers such types of resources as object resources, personal resources, condition resources, and energy resources. Respondents answered questionnaire questions using a five-point scale (1 – not at all, 2 – to a small degree, 3 – to a moderate degree, 4 – to a considerable degree, 5 – to a great degree). The questionnaire is structured in such a way so as to give results in three resource-related areas. During the first stage, respondents assess the importance of each resource, during the second stage they evaluate their levels of those resources, and during the third stage they estimate how much of each resource they have lost. The questionnaire has a high psychometric value. Its reliability, measured using Cronbach's alpha for a group of 1697 adults, was 0.97 for resource importance, 0.98 for resource gain, and 0.98 for resource loss. For the purposes of this study, the Conservation of Resources-Evaluation (COR-E) questionnaire by S. Hobfoll was adapted to the current situation of Ukrainian citizens. It was also translated into the Ukrainian language. With the assistance of expert judges, the scale was reduced to 54 items.

### **Life Attitude Questionnaire (KPŻ) by Ryszard Klamut**

This scale is a Polish adaptation of the Life Attitude Profile-Revised (LAP-R) by Gary T. Reker. The Life Attitude Questionnaire is a multi-dimensional self-assessment tool for the measurement of the experienced meaning in life, and also motivation for giving meaning to one's existence and defining one's goals. Similarly to the original LAP-R, the Polish adaptation comprises 48 items. Respondents give answers using a seven-point Likert scale to describe the degree to which each statement is true in relation to them. The Polish version of the questionnaire includes six simple scales and two complex scales. The simple scales refer to attitudes to life, and include

- Purpose (PU; Polish *Cel*, C)
- Coherence (CO; Polish *Spójność wewnętrzna*, SW)
- Life Control (LC; Polish *Kontrola życia*, KŻ)
- Death Acceptance (DA; Polish *Akceptacja śmierci*, AŚ)
- Existential Vacuum (EV; Polish *Pustka egzystencjalna*, PE) and
- Goal Seeking (GS; Polish *Poszukiwanie celów*, PC).

The complex scales are

- Personal Meaning Index (PMI; Polish *Osobowy sens, OS*) – made up of two subscales, i.e., Purpose (*Cel*) and Coherence (*Spójność wewnętrzna*)
- Life Attitude Balance Index (LABI; Polish *Równowaga postaw życiowych, RPŻ*), made up of all the simple scales, with the results from the Purpose (*Cel*), Coherence (*Spójność wewnętrzna*), Life Control (*Kontrola życia*) and Death Acceptance (*Akceptacja śmierci*) scales included as positive weights, and the results from the Existential Vacuum (*Pustka egzystencjalna*) and Goal Seeking (*Poszukiwanie celów*) scales included as negative weights (Klamut, 2010, pp. 37–38).

The study of people affected by armed conflict employed the Purpose (*Cel*) subscale. Respondents who achieve high scores for this scale are considered to have a sense of direction in life. They are guided by clear and well-defined life goals. In addition, they are also forward-looking, or future-oriented, rather than backward-looking, or past-oriented. They are convinced of the importance of their goals. In turn, respondents who achieve low scores for the Purpose scale do not have a sense of direction in life. They are characterised by the lack of goals. This leads to their not believing that their life has value, and having no positive experiences associated with intentional actions.

The questionnaire has a high psychometric value. Its reliability, measured using Cronbach's alpha for a group of 600 adults, was 0.77. Life Attitude Questionnaire was adapted to the conditions of people living in Ukraine. For the purposes of the study, the questionnaire was translated into the Ukrainian language.

In addition, we used our own **personal information questionnaire**. Our questions were designed to describe the group in terms of gender, age, marital status, and education. Some of the questions related directly to the armed conflict situation and concerned the loss of a loved one as a result of the conflict, involvement in the armed conflict (form of involvement), and whether respondents had to move away as a result of military operations.

## Results

### **A description of the relationship between resource distribution and the sense of purpose in the study group**

In order to analyse correlations between the importance of resources and sense of purpose, we calculated Pearson's  $r$  for the scores obtained in the study. The data are presented in Table 1.

Table 1 *Correlation matrix (Pearson's  $r$ ) between resource importance and sense of purpose in people affected by armed conflict*

	<i>Resource importance</i>	<i>Purposefulness</i>
Resource importance	1	0.141**
Purposefulness	0.141**	1

\*\*  $p < 0.01$  (one-tailed).

We observed a statistically significant correlation between the distribution of resources and the sense of purpose in people affected by armed conflict. The correlation is one-tailed, positive, and weak ( $r = 0.141$ ). This means that the greater the importance of resources, the stronger the sense of purpose in people affected by the armed conflict in Ukraine.

In order to analyse correlations between the loss of resources and the sense of purpose, we calculated Pearson's  $r$  for the scores obtained in the study. The data are presented in Table 2.

Table 2 *Correlation matrix (Pearson's  $r$ ) between resource loss and sense of purpose in people affected by armed conflict*

	<i>Resource loss</i>	<i>Purposefulness</i>
Resource loss	1	-0.095*
Purposefulness	-0.095*	1

\*  $p < 0.05$  (one-tailed).

The analysis of the relationship between the resource loss and the sense of purpose in people affected by armed conflict showed a statistically significant correlation between these variables. The correlation is negative, weak ( $r = -0.095$ ), and one-tailed. This means that the greater the loss of resources in people affected by armed conflict, the weaker their sense of purpose.

In order to analyse correlations between the resource gains and the sense of purpose, we calculated Pearson's  $r$  for study participants. The data are presented in Table 3.

Table 3 *Correlation matrix (Pearson's  $r$ ) between resource gain and sense of purpose in people affected by armed conflict*

	<i>Resource gain</i>	<i>Purposefulness</i>
Resource gain	1	-0.019
Purposefulness	-0.019	1

The analysis based on a correlation matrix (Pearson's  $r$ ) did not show any statistically significant correlations between the resource gain and the sense of purpose in people affected by armed conflict.

## Conclusions

The objective of this study was to analyse correlations between resource distribution and the sense of purpose in people affected by armed conflict. An important part of the study was an attempt to address the question of the purposefulness of individual behaviour in the context of resource gain and loss.

The importance of resources was found to show a weak but positive correlation with purposefulness. This means that the more important the individual's resources are to them, the more goals or missions in life they have. Our findings are consistent with previous research into this area. Other scholars, too, have observed a correlation between resource importance and purposefulness. The importance of resources seems to be crucial for goal assessment and achievement. Considered by scholars as personal resources, hope, self-esteem, and optimism, significantly contribute to the positive assessment of the possibility of successfully completing a task, thus impacting on how effectively it is performed (Nowaczyk, 2014; Łaguna, 2010).

In order to address the question of whether there was any correlation between resource loss and the sense of purpose, we analysed the relationship between these variables. Our findings suggest a negative and weak correlation between the two. This means that the more resources the individual loses, the weaker the perceived purposefulness of their actions. The main hypothesis referred to above was complemented with four specific hypotheses to explore the correlations between the types of resources lost, and sense of purpose.

Our findings are consistent with previous research into this area. The belief in having important goals in life is associated with a sense of direction and being meaning- and value-oriented. Consequently, such a belief is the basis that allows the individual to satisfy their existential needs and embrace the essence of their life (Klamut, 2012). According to other scholars (Fredrickson & Branigan; 2005), positive beliefs affect human behaviour. Such positive attitudes help expand one's resource pool. However, our findings are inconsistent with those of some other researchers (Gorgievski, Halbesleben & Bakker, 2011; Łaguna, 2015), who argue that the initiation of growth spirals leads to being oriented towards the positive aspects of setting new goals. In addition, Witkowska (2012) argues that resource gains can produce positive expectations, which, in turn, encourage goal-oriented action. It is also important to note that during the study respondents were in a difficult situation, i.e., the armed conflict in Ukraine. In line with Hobfoll's concept (1989, 2001, 2006), loss spirals play a more important role. Resource reconstruction has not been commenced yet. This explains why our findings failed to confirm our research hypothesis.

## References

- Fredrickson, B., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition and emotion*, 19(3), 313–332.
- Friedrich, J., & Lengyel, M. (2016). Goal-directed decision making with spiking neurons. *Journal of neuroscience*, 36(5), 1529–1546.
- Gorgievski, M., Halbesleben, J., & Bakker, A. (2011). Expanding the boundaries of psychological resources theories. *Journal of occupational and organizational psychology*, 84(1), 1–7.

- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513–524.
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: advancing conservation of resources theory. *Applied Psychology*, 50(3), 337–421.
- Hobfoll, S. E., Canetti, D., & Johnson, R. (2006). Exposure to terrorism, stress-related mental health symptoms, and defensive coping among Jews and Arabs in Israel. *Journal of consulting and clinical psychology*, 74(2), 207–218.
- Hobfoll, S. E. (2006). *Stres, kultura i społeczność. psychologia i filozofia stresu* [Stress, culture and community. The psychology and philosophy of stress]. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- Klamut, R. (2010). *Kwestionariusz Postaw Życiowych. Podręcznik do polskiej adaptacji kwestionariusza Life Attitude Profile-Revised (LAP-R) Gary'ego T. Reker'a* [Life Attitude Questionnaire. A manual to the Polish adaptation of the Life Attitude Profile-Revised (LAP-R) by Gary T. Reker]. Warsaw: Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego.
- Klamut, R. (2012). Typy struktury sensu życia a treści celów wybieranych do realizacji [Life meaning structure types and goals chosen for implementation]. *Roczniki psychologiczne*, 15(4), 139–158.
- Kozielecki, J. (1988). *O człowieku wielowymiarowym* [On the multi-dimensional man]. Warsaw: PWN.
- Latham, G., & Locke, E. (1991). Self-regulation through goal setting. *Organizational behaviour and human decision processes*, 50, 212–247.
- Łaguna, M. (2010). *Przekonanie na własny temat i aktywność celowa. Badania nad przedsiębiorczością* [Beliefs about oneself and intentional activity. A study on entrepreneurship]. Gdańsk: GWP.
- Łaguna, M. (2015). Zasoby osobiste jako potencjał w realizacji celów [Personal resources as a potential in goal achievement]. *Polskie forum psychologiczne*, 20(1), 5–15.
- Reker, G. (1992). *Life attitude profile-revised (LAP-R). Manual*. Peterborough: Students Psychologists Press.
- Solway, A., & Botvinick, M. (2012). Goal-directed decision making as probabilistic inference: a computational framework and potential neural correlates. *Psychological Review*, 119(1), 120–154.
- Tomaszewski, T. (1975). *Psychologia* [Psychology]. Warsaw: PWN.
- Witkowska, J. (2012). Teoria zachowania zasobów i jej implikacje dla problematyki stresu, zdrowia i odporności [Conservation of Resources theory and its implications for the issues of stress, health and resilience]. In E. Bielawska-Batorowicz, B. Dudek (eds.), *Teoria zachowania zasobów Stevena E. Hobfolla. Polskie doświadczenia* [Stevan E. Hobfoll's Conservation of Resources theory. Polish experiences] (pp. 17–42). Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
- Zaleski, Z. (1991). *Psychologia zachowań celowych* [Psychology of intentional behaviour]. Warsaw: PWN.
- Zalta, A., Gerhart J., Hall, B., Kumar, B., Vechiu, C., Canetti, D., & Hobfoll, S. (2016). Self-reported posttraumatic growth predicts greater subsequent posttraumatic stress amidst war and terrorism. *Anxiety, Stress & Coping*, 14, 1–31.

## Phenomenology and mechanisms of formation of alcohol dependence in conditions of social stress

*Vitalii Lunov*

Dr. H.C. of Oxford Academic Union, PhD in Psychology, Professor in Psychology of RANH, Associate Professor at the Department of General and Medical Psychology and Pedagogics of Bogomolets National Medical University, Kyiv, Ukraine

*Kostiantyn Gaponov*

M.D. PhD, Chief Physician of the Kharkiv Regional Drug Addiction Dispensary, Associate Professor of Narcology Department of Kharkiv and Medical Academy of Postgraduate Education, Kharkiv, UA

---

### ABSTRACT

An analysis of the literature data on alcohol addiction, post-stress maladjustment and the combination of the two revealed a significant number of common node moments in pathogenic mechanisms of their appearing and realisation. This concerns biological mechanisms that are common for both processes, and the activation of these mechanisms in either of the processes provokes their development in the other. First of all, this concerns the stem structures of the brain and neuroendocrine mechanisms of the central and peripheral regulation, and their activation is cross-linked with stressor reaction and alcohol addiction. Studies reveal a crucial role of the stressor reaction mechanisms and their association with post-stress maladjustment in the development of psychological alcohol addiction. A hypothetical model was created of the development and functioning of a relation between pathogenetic mechanisms and co-existence of the analysed pathological states.

*Keywords:* post-stress maladjustment, alcohol addiction, stressor reaction, psychic mechanisms, vegetative regulation, comorbidity

---

## **Introduction**

For our country, which suffers from social commotions and disturbances as well as a military conflict, the problems of psychic health and demonstration of maladjustment of different kinds, including posttraumatic stress disorder, become a serious issue. It is not a secret that in such conditions the number of cases of addictive behaviour such as alcohol abuse with further development of alcohol addiction increases significantly. This problem is especially acute for the participants of combat operations in the ATO zone and those after demobilisation. But the mechanisms of forming the connections between alcohol use and post-stress maladjustment remain unexplained till now. Thus, the research was carried out for the purposes of generalisation of the existing studies of the problems, detection of weak and unascertained links and formation of hypothesis for their solution.

## **Study methods**

The study of scientific literature dealing with the problem of the analysed pathologies was carried out from the position of the law of transfer of quantitative changes into qualitative ones with a strict abidance of the casual relationship of phenomenology and disorder mechanisms under analysis.

## **Research results**

Stress situations are permanent satellites of human life. The problem is especially acute for our country torn by social and economic disturbances and military actions. Stress factors can be divided depending on the impact of either extraordinary events (war, natural or technological disasters) or the ordinary routine troubles. Stressor reaction is a nonspecific adaptive mechanism (adaptive syndrome) directed at the adjustment of physical and psychic functioning in response to the stress factor (Sel'e & Krepsa, 1982). After the exposure to a stress factor, a person never returns to the state from before the stress; some changes in the somatic and psychic spheres always take place. One of these changes is a situation when destructive pathological changes develop in the body as a response to a stress factor. First of all, it depends on the force and duration of the stress factor impact and on the adaptive skills of an individual's body.

Stress factors are divided into the physical (somatogenic) and psychic (psychogenic) ones. Accordingly, the stress types undergo the same division – into somatogenic and psychogenic ones. The somatogenic one is described in literature as adaptive syndrome or a nonspecific reaction of the body. In a narrow sense, according to G. Selye's theory, it is an activation of the sympathoadrenal system. The development of scientific studies on the somatogenic component of a stressor reaction increased the spectrum of mechanisms involved in its realisation and formed the notions of stress-realising and stress-limitative systems. The first one involves the action of the CNS structures, endocrine centers, high vegetative centers, secretion activation and stress-hormones (vasopressin, ACTH, corticosteroids, catecholamines), mediators (mainly noadrenalin, etc.) (Vorotnikova, Zabrodina & Sorokin, 2006). The second involves the activation of the GOOA- , opioid- and serotonergic

systems and benzodiazepine receptor systems; decrease in the secretion and activity of catabolic hormones (corticoliberin, ACTH, glucocorticoids, vasopressin, catecholamines, T<sub>3</sub> and T<sub>4</sub>); increase in secretion and activity of anabolic hormones (STH, insulin, androgens, mineralocorticoids); weakening of the activity of the CNS and adrenergic structures; increase in the cholinergic structures activity; inhibition or weakening of pain, convulsions and the state of anxiety; ease in falling asleep and improvement of the quality of sleep; strengthening of the antioxidant system, acceleration of regeneration of injured structures of the body, etc. Generally, according to G. Selye's theory, the resources of the stress-realising system are sufficient for 2–3 hours. The character of the somatic component of the stressor reaction and its consequences are determined by several factors, i.e. the type and severity of stress and conditions of its demonstration. Especially, the state of stressor systems of the human body. Its interconnection results in neutralisation of stress factor action, adjustment to an injury or death. It is obvious that isolated somatic stress is impossible with a human being. It is always attended with the development of a psychical stress state.

Psychogenic stress and the psychical component of the somatogenic one are distinguished by emotional and cognitive processes, need assessment and alteration of sensor information with a subsequent inclusion of the psychic adjustment mechanisms. In turn, mechanisms of psychic stress are realised through process-equivalents of the central nervous system, central and peripheral links of the vegetative nervous system. Two types of reactions on the stress factor impact are developed. The first – direct (acute) stressor reaction to the stress factor impact; the second – reaction to stress as the complexity of psychic processes that represent the way of personal adjustment to disorders (changes), which emerge as a result of stress. Both reactions may have different grades of manifestation, ranging from psychological to psychotic ones (Karvasarskiy, 2006; Aleksandrovskij, Rumjanceva & Shhukin, 1990; Aleksandrovskij, Lobastoe, Spivak & Shhukin, 1991), but only the reaction to stress may display the range from acute to chronic ones. It is only an indicator of a success in the adjustment to changes that emerged in a personal structure as a result of stress factor and its consequences (Aleksandrov, 2004; Zagurovskij, 2014).

It is caused, on the one side, by the properties of the stressor reaction, whose mechanisms narrowly interact and interlace with the mechanisms of realisation of the reaction to stress. This concerns keeping in mind fixation of all psychic and somatic mechanism of the stressor reaction in unitary module (contour) that is stably associated with all internal and external phenomena and processes that take place in the state of stress (Zagurovskij, 2014; Sudakov, 2003, 1981).

As a result of an intense affective supply and significance of a formed module, it is easy to reanimate it in one's memory especially by activation of fixed associated connections and repeated corresponding feelings and starting off the stressor reaction mechanisms. In this way the stressor reaction loses limitation in time and results in the development of the so-called "chronic" psychic stress (Saldan & Zagurovskij, 2013). Stress can become chronic in the case of a prolonged influence of a stress factor and the consequences of such a situation include somatic ones that change a person's future life.

Psychogenic stress factors have a wide range – from ordinary routine problems to social disturbances, war, disasters that have an instant or gradual negative influence on different spheres of human life, situations of permanent anxiety, strain, fear, frustration or life threat. The severity of stress depends on its actuality, significance, degree of threat, duration, stress-induced harm and its consequences. To fight stress, in all cases there are mechanisms



of psychological defence that to some extent weaken its negative effect on the individual (Sudakov, 2005; Bodrov, 2006; Kitaev-Smyk, 2009).

In cases when psychological defence is insufficient, there are no adequate strategies of adjustment in a state of frustration; with an inevitable impact of stress factor or its consequences, one or another maladjustment state from the register of disorders is bound to develop in the individual (Zagurovskij & Nikonova, 2014; Bodrov, 2006). It is especially acute among the participants of combat actions and employees of the armed forces, when they are put under pressure to realise behaviour strategies that are inadmissible, addictive and forbidden in normal life conditions. This situation leads to the development of a deep internal conflict, that is the stress itself, and results in personal maladjustment (Zagurovskij, 2015).

Another important factor that determines the characteristics of the reaction to stress are pre-stress traits of the individual (Vizel', 2006; Lichko, 2010; Zozulja, 2001) and social conditions of their life activity. It determines such objective and subjective indicators as prosperity, assurance of defense and adequate help, security, reliability, support and social help as well as future prospects, etc. The presence or absence of these conditions or even more – the threat from society, determines the intensity and form of the reaction to stress. At the same time different social changes and disturbances can be the source of stress (Malkina-Pyh, 2006; Rumjanceva & Dmitriev, 2001; Gurevich, 2012) .

In psychiatric practice according to ICD-10 the following clinically described psychic disorders are distinguished: F43.0 – acute stress reaction; F43.1- post-traumatic stress disorder (PTSD); F43.2 – adjustment disorders; F43.8 – other reactions to severe stress; F43.9 – unspecified reaction to severe stress. All these, with the exception of F43.3, can be characterised as clinically described maladjustment disorders. It is mainly psychopathology of the boundary disorders or neurotic patterns that stands rather near to nosologically independent neurotic disorders, which have specific signs in their structure (Popov & Vid, 1998).

The main criteria distinguishing PTSD are following: 1) persevering stressor state; 2) flow of memories concerning the place of life-threatening situation, “survivor’s guilt”, dreams with traumatic scenes; 3) striving to avoid emotional loads, uncertainty, fear of tormenting memories appearing (“playback of a tragedy”), absence of contact with the surrounding; 4) complex of neurasthenic disorders mainly with increased irritability and decreased concentration and focus, “functioning tone”; 5) stigmatisation of separate pathocharacterologic symptoms and tendency to form personal disorders with deviant behaviour and different forms of addictions (alcoholic, narcotic, nutritive, etc.).

Acute psychic disturbances at PTSD are characterised by depersonalisation and derealisation disorders, anxious-depressive states accompanied by fear for own life, tearfulness, awful dreams; depressive reactions with conversion disorders; reactions of euphoric type with verbosity, significant underestimation of the gravity of own somatic state; obsessive-phobic disorders and sleep disturbances (Sidorov, 2008; Karvasarskiy, 2011; Romek, Kantorovich & Krukovich, 2005; Leont'ev & Mohovikov, 2007).

In further PTSD development, it is necessary to pay attention to the combination of two groups of clinical phenomena: continuing flows (reanimation) of an extreme situation in the patient’s consciousness of with concomitant affective reactions (anxiety, fear, horror); avoidance behaviour, evasion of a situation, i.e. striving to go away from anything that can remind of a tragic event (Krasnova, 2004; Bleer, 2008). An inclination to alcohol and drug abuse only strengthens social maladjustment. In general, the behavioural peculiarities of patients with PTSD remind of the image of psychopathic state. At the beginning, taking

alcohol and drugs brings them some relief, which explains the significant popularity of both among patients with PTSD. At a further stage of the disorder (within 12–14 month), states characterised by sleep disorders, hopelessness, feeling of despair, utterly pessimistic assessment of the situation in the country, identification of the situation with own destiny and suicidal thoughts associated with it may appear.

It is impossible for such a person to remain in the stress state for a long time without a proper specialist attention. In the absence of adequate defensive mechanisms and alternative behaviour strategies, the patient starts to seek for a relief from anxiety, strain, hopelessness and painful feelings. The easiest and most accessible way to do it is alcohol consumption. The relation between alcohol and stress was revealed back in ancient times. In different cultures people believed that alcohol calms their nerves. On the one hand, alcohol was considered as a way to relieve stress, on the other, however, stress situations induced alcohol intake. Modern sociological studies discovered a close relation between the level of stress in a society and the extent of problems connected with alcohol consumption (Pohorecky, 1991). It is considered that in most stress situations alcohol has a stress-protective effect. Even if it is only short-term, definitely intoxication gives relief in stress, takes away strain and changes the perception of reality (Neafsey & Collins, 2011). The state of intoxication brings optimistic feelings about life. However, if a person brings a significant part of life activity to the state of intoxication, they end up drinking systematically and further develop alcohol addiction. Analysing the close connections between stress and alcohol abuse, especially in the clinically described variants of post-stressor disorders and alcohol abuse, it is necessary to explain the relationship between these two pathological states.

In general, biological factors in the development of alcohol addiction can be reduced to genetically-dependent peculiarities in the enzyme systems of ethanol digestion and the effect of ethanol and its metabolites on neuromediator homeostasis of the brain. The rate and intensity of intoxication differs depending on the individual, which is caused by the genetically determined isoenzymological spectrum of alcoholdehydrogenase (ADG). The activity of different ADG isoforms varies considerably from person to person (Zupanec, Bezdetko & Derimedved', 2003). Ethanol has intense organotropism – this means that its concentration in the brain exceeds its blood content. Even very low doses of alcohol start up an activity of inhibitory GABA – systems of the brain (Krystal et al., 2006). This very process leads to the effect of sedation, which is accompanied with muscle relaxation, somnolence and euphoria (feeling of intoxication). Genetic variations of GABA receptors can result in an inclination to alcohol (Enoch, Schwartz, Albaugh, Virkkunen & Goldman, 2006). An intense activation of dopamine receptors was observed in the so-called reinforcement centre of the brain (nucleus accumbens) and in the ventral sectors of the brain striatum. The reaction of these zones to dopamine, which is released under the influence of ethanol, causes euphoria and can result in alcohol addiction (Kalivas & Volkow, 2005). Ethanol also leads to the secretion of opioid peptides (for example  $\beta$ -endorphin), which is connected with the release of dopamine. Opioid peptides also play a specific role in bringing about the effect of euphoria (Wildenberg et al., 2007). Alcohol stimulates the serotonergic system of the brain. There are genetically-dependent differences in the sensitivity to alcohol, which depend on the alleles of serotonin transporter genes (Barr et al., 2003). Extensive studies were carried out on the influence of alcohol on other receptors and mediator systems of the brain, including adrenal ones (Weinshenker & Schroeder, 2006), cannabinol (Blednov, Cravatt, Boehm, Walker & Harris, 2006), acetylcholine (Borghese, Ali, Bleck & Harris, 2002) receptors,

adenosine and stress-regulating systems [for example, corticotropin-releasing-hormone (Witkiewitz, 2008)]. High concentrations of alcohol can cause oxidative damage of neurons (Muneer, Alikunju, Szlachetka & Haorah, 2010).

Scientific researches demonstrated that stress hormone – corticotropin-releasing factor (CRF) plays an important role in the development and maintenance of alcohol addiction. CRF is a natural substance that constitutes the stress reaction of the human body. It is present in hypothalamus and hypophysis (activates secretion of corticotropin and other biologically active substances) and in cerebellar tonsils (connected with excessive anxiety and abuse of alcohol). CRF increases the force of inhibitory synapses in neurons, which is also peculiar to alcohol. If the activity of this hormone is correctly blocked it is possible not only to get rid of alcohol addiction but even prevent its possible development (Razvodovskij, 2006; Michael & Sayette, 1999; Piazza, Le Moal, Grantand & Schutz, 1998; Brady, Tolliver & Verduin, 2007). Therefore, the activation of the stress hormone is directly connected with development of alcohol addiction. Summing up, it can be concluded that alcohol consumption influences mechanisms of the development of stressor states through the inhibition of several links of stress-realising systems and the stimulation of the links of stress-limiting ones.

At the beginning, alcohol overuse (everyday excessive drinking) is a preclinical manifestation of alcohol addiction. The following add to this situation: stress, strain, permanent overwork, problems in relations with people, social conflicts, a feeling of inferiority, difficulties in one's surrounding, unconscious mood decline caused by different factors, etc. A person strives to relax, wants to distance themselves from everything around and escape from existing problems. Drinks are used with different frequency and in different quantities as a systematic or unintentional intake of different alcohol doses. Yet, there is no addiction to alcohol, no search for occasions to consume it and no other signs of alcohol addiction (Behtel, 1986). Everyday alcohol consumption can last rather long without turning into addiction, but it is also a starting point for the development of alcohol addiction. An analysis of the reasons for intoxication enables the identification of the hazardous symptoms already in preclinical forms. By isolating the external causes of alcohol consumption that are independent of the person, one will reveal the complex of personal (internal) causes. And it includes: a) an absence of personal corresponding (adequate) behaviour (response) strategies; b) inadequate behaviour strategies as taking alcohol and intoxication in response to any circumstances and events of life. The state of alcohol intoxication is characterised by a specific state of consciousness that is inherent to all psychoactive substances (Belik, 2000; Kollin & Godfri, 2004; Ahmetov & Zhidko, 2000). This psychic state has some peculiarities, among which, in the context of alcohol addiction and stress, the most important are: facilitated access to the deep psychic processes, increased suggestiveness, distorted perception and interpretation of real events, change of criticism and emotional processes (Zagurovskij & Nikonova, 2014; Zagurovskij, 2011; Ahmetov & Zhidko, 2000). On the one hand, it eases out the personal stressor state, decreases strain and levels off present threats. On the other hand, the experience of a specific state of consciousness becomes a condition that favours psychic addiction and fixation of alcoholic intoxication as a personal behaviour strategy on the background of the stressor state. The positive reinforcement and emotions accompanying the state of alcoholic intoxication become yet another factor that fixes it as a personal behaviour strategy closely associated with the stressor state.

Consequently, the next stage is a clinically outlined alcoholic addiction. According to ICD-10 it is characterised by the corresponding diagnostic criteria. The analysis of manifestations indicates both psychic and physical dependence on alcohol and such behaviour can be considered as addictive. The causes of alcohol abuse in general and of addiction development can be divided into biological (genetic) and psychic ones. In its origin, there are the following factors distinguished: medical-biological, psychological and social (Nikiforov, n.d.; Jellinek, 1972; Egorov, 2002).

Surely, disturbances in the described biological mechanisms can become a factor for the development of alcohol addiction. Furthermore, genetic disorders of psychic sphere (for example, psychopathy), hereditary inclination, different injuries and diseases of the central nervous system are the factors that may add to developing addiction. Moreover alcohol addiction usually develops in connection with disorders of emotional and volitional spheres, i.e. criticism and self-control. With this in mind, we gradually pass to the psychic component of the etiology of alcohol addiction.

## **Discussion of the study results**

A great number of studies are devoted to the problem of psychosocial factors that influence the development of alcohol addiction (Al'tshuler, 2010; Mehtihanova, 2008). They cover almost all possible aspects of personal life in society. In general, the studies can be limited to deal with the influence of two categories of factors:

1. Social: cultural and material level of life, social traditions and sets of social norms, informational overload, abrupt change of social state of a population, war, disasters, etc.
2. Psychological: personal psycho-emotional features, low adjustment skills and resistance to stress, low adjustment skills to transfer from one social order to another, personal rigidity.

It is necessary to pay attention to the special features of persevering stress resulting from acts of violence on a person, work in the structures of armed forces and participation in combat actions. These people face the necessity to use violence for defense against violence or for execution of their duties, which sometimes involves killing other people, witnessing cruel behaviour or death of other people, friends or relatives. It is necessary to keep in mind that society cultivates in every person from their birth a set of moral and behavioral standards. Usually, violence, cruelty, infringement on personal honour and health or murder are taboos cultivated among members of society. These standards are usually set at an early age and they are strong and rigid. In new conditions, they are leveled off, especially when a person is required to ignore them and use behaviour prohibited at the stage of upbringing. This fact leads to an internal conflict between earlier taboos and new behavioural standards adopted as a result of the stressor state development. At the same time, such a person remains in the state of internal conflict returning to an ordinary way of life, in which the newly adopted behaviour is unacceptable.

It is crucial to point out some peculiarities of the stressor state. Its development narrows abruptly the personal choice of behaviour strategies in stress circumstances. Such a person is bound to use the most common and ontogenetically early strategies. In some cases, these can be variants of a teenager or even an earlier period of life. This rollback in to ontogenesis

is most vividly demonstrated by hypo- and hyperkinetic affective-shock reactions. Obviously this peculiarity of the choice of behaviour in response to a stress factor instantly narrows variants and possibilities of successful stress coping. And its character stimulates a strong fixation of behavioural strategy that is inadequately used by the individual.

Thus, it can be assumed that the background which supports the development of alcohol addiction is identified. In a primary addiction, all these factors are combined under two symptoms: the symptoms of acute (chronic) psychic stress and frustration. Together with the appearance of the third one, i.e. personal psychical peculiarities of different origins, one may talk about a secondary addiction or complication. The next step will consist in an attempt to consider the dynamic process of interaction of the analysed phenomenology as reliable pathogenetic mechanisms of formation and interaction of PTSD and alcoholic addiction.

An important factor in connection with this is accessibility of alcohol during the whole period of stressor state and the experience of the effect of alcohol on the individual or other people in their surrounding. In other words, this concerns the possibility to enter into the state of intoxication as a way of reaction or psychological defense in conditions of the stressor impact.

As is known, the development of stressor reaction in stress always leads to personal changes. The period of personal reaction to stress occurs after the end of stressor reaction. Its structure can be conventionally divided in two components. The first one – subclinically or clinically outlined forms of psychic or psychosomatic reactions. It can be characterised as a direct way of adaptation. The second one – changes in other behaviour strategies that are not directly used but have certain connection with adaptive changes. In other words, a person will never return to their state from before the stressor impact. The depth, significance and intensity of changes depend on personal sensitivity as well as significance and actuality of used behaviour strategies.

The next link is the stress factor impact. If we consider the most common PTSD as being the result of participation in combat actions, the first stage is the moment of conscription to the army. At first, the change of lifestyle, surrounding and relations that essentially differ from the habitual civil ones become the stress factor. Then, one must add broken life relations, personal duties, responsibility and other values left in the civilian's life. So the stress factors at mobilisation are multiple. And the more rigid the sets of rules and strategies of personal behaviour and the less plastic and prone to adjustment they are, the more acute the stressor impact and stressor reaction. To the background of the stressor reaction, contributes the associated decrease in critical reasoning, rollback to the earlier behaviour strategies and influence of the crowd behaviour principle in leveling of personal sets. Is there anything to soothe this state? First of all, personal motivation, prospective goals (achievements), safety of all that was left in civil life and personal safety in all aspects of future life. The state of a chronic psychic strain and negative emotional load needs engagement of personal mechanisms of psychic defense and at least a few positive feelings. With weak psychic defense and weak mechanisms of stress soothing, alcohol allows to achieve the desired result.

The involved mechanisms of the stressor reaction, the specific state of consciousness as a result of taking alcohol, the intense emotional burden, the significance and present common neurobiological mechanisms of impact realisation cause a strong fixation of the module of behaviour. Taking into account the effectiveness in attaining the final personal aim, this module of behaviour (way of defense) is strongly fixed by the conditions of its

formation, supported by repetition, and appears as actual and significant. At this point, one can assume that this is the initial stage in the development of alcohol addiction. It can be characterised as resulting from a particular situation.

The next stage involves a stay in the zone of combat actions and participation in them. A life threat as a perspective of being killed or wounded and remaining alive but disabled with its consequences ranks at the top among stress factors. Very often this threat is permanent and almost utterly non-dependent on the person. In combat actions, the major goal is the execution of the combat mission. Watching and feeling the wounds and deaths of comrades in combat actions is for the individual a visible illustration of the fate they might share. Then, one must include another factors that add up to the notion of combat efficiency, for example routine conditions and supply operations.

Another and no less important stress factor is the development of the personal internal conflict. In societies that are in a permanent military conflict, the readiness to participate in the conflict becomes a national feature; the individual adopts the use of force, violence and murder, the feeling of death (own or of close people), losses associated with the context of death as the natural behaviour strategies. It also applies to most people who are directly connected or professionally involved in the armed force structures despite undergoing appropriate psychological training. For people who became participants of combat actions and who experienced normal civil life before the military conflict, all war attributes, including the necessity of using violence, cruelty, murder, observing the results of destructive actions, understanding their own direct involvement in traumatic events, are severe stress factors. Additionally, the principles and laws of war, rules of behaviour and personal actions stand in a conflict with almost all basic principles that govern civil life in times of peace and that are adopted by the individual from an early childhood. This internal conflict accompanies such a person throughout their life, becoming one of the most severe stress factors.

Obviously, all the listed factors together with the already existing ones do not depend on the individual. The extent to which the mechanisms of psychic defense and stress soothing factors are effective in such conditions is strictly connected with the severity of destructive psychic processes. The situation that does not depend on the individual provokes anger and aggression more often than dysphoria, affective disorders, asthenia, or depression.

The mechanisms that took part in the fixation of behaviour strategy module work much more effectively. It is caused by such factors as life threat, engagement of biological mechanisms of survival, intense affective accompaniment, reality and significance of a particular situation. The formation and adoption of the new modules of behaviour ways in conditions of combat action are fast; the stressor load on psyche grows. The necessity to relieve this pressure animates, actualises and triggers the already formed (or in the process of formation) module of defensive behaviour as alcohol consumption. In these conditions it more firmly fixes the initiated mechanisms of positive support. The module gains the features of universal defensive behaviour, encompassing the whole spectrum of emotional (affective) manifestations as the initiated ones. This can be identified as an already developed psychic alcohol addiction being the form of personal defensive strategy in stress conditions.

The next stage of maladjustment is the process of returning to the peaceful way of life. As it was indicated earlier in the study, in severe conditions of combat actions, new life behaviour strategies are developed and initiated as a result of necessity for a person to face a new reality. At the same time, the newly created behaviour strategies format and change the strategies corresponding to living in times of peace. So it is clear that it is a completely

different person that returns to the peaceful life. The following specific changes are typical for such a case:

1. The presence of new rigid behaviour strategies necessary for successful life activity in conditions of combat actions.
2. Formatted (changed) old behaviour strategies for life activity in peace conditions.
3. Internal conflict between the “new” and “old” behaviour strategies.
4. Chronic psychic stressor state caused by participation in combat actions and personal reaction to them.
5. “Old” and “new” problems in different spheres of life activity in peace conditions.
6. Revaluation of life values and priorities.
7. Contradiction of the new features and personal behaviour and the ones that “old” social circles, including family, got used to and expect.
8. Contradiction of the real and expected relations with the individual and their status of a participant of combat actions.

All the points listed above become the chronic stress factors. In fact, such a person with their new characteristics does not get understanding of other people. They expected quite another person, such as they had been before mobilisation. And the person is not satisfied with their old friends and acquaintances. Therefore, it is clear that one more stress factor is added to the list, namely contradiction of the individual and their old place in society. At the same time, such a person begins to use behaviour strategies developed in combat action conditions for solving problems in various spheres of life, for example communication with close people and other members of society. Such behaviour cannot be understood by other people, causes protests and is sometimes interpreted as deviant or criminal in peaceful life conditions. So what results is the maladjustment of different degree in different life spheres.

In other words, the person cannot find their place in the old social circles, which are perceived by the person as strange. A new circle of people is hard to be found for such a person, and the older and more rigidly organised the person, the more difficult it is for them to find adequate new people and place for living. However, there are people in the same state as participants of combat actions or with similar life conditions, for example members of criminal society, soldiers, etc.

Among these people, a rooted and the most common way to relieve psychic strain and stress, improve mood, decrease pressures of circumstances on the individual is alcohol abuse, which gets its further development. Moreover, this way of defensive behaviour is already strictly connected with stress and almost always has a form of a psychic addiction. A further alcohol consumption results in that a person undergoes changes that are specific to addiction, which in turn deepens the state of maladjustment.

The interaction between stress and the state of alcohol intoxication together with development of psychic alcohol addiction is represented by the following chart (Fig. 1).

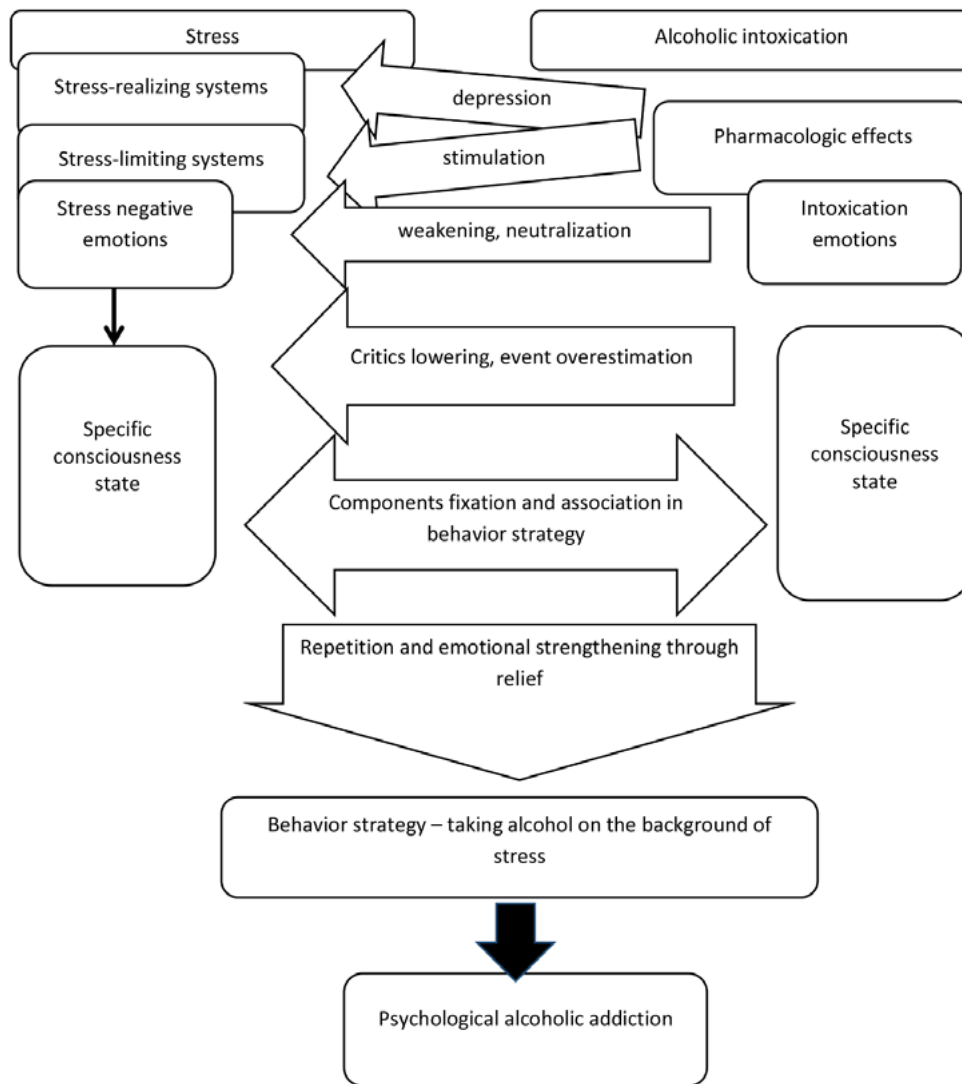


Figure 1. Scheme of interactions between stress and alcohol addiction mechanisms.

## Conclusions

Summing up the analysis of mechanisms, phenomenology and their interconnection in the structure and development of post-stress maladjustment and alcohol addiction, the following conclusions can be drawn:

1. Post-stress maladjustment and alcohol addiction have many common or related points in psychobiological mechanisms of their realisation.
2. In terms of the time of their emergence, the two disorders may be considered coexistent as the alcohol addiction is a clinical manifestation of post-stress maladjustment.



3. Alcohol addiction on the stage of development of post-stress maladjustment can be represented by everyday alcohol abuse, situational or permanent psychical addiction, physical addiction.
4. In relation to post-stress maladjustment mechanisms, alcohol abuse can be considered as an inadequate mechanism of personal psychic defense against the effect of stress factors.

## References

- Ahmetov, T. I., & Zhidko, M. E. (2000). *Psihoterapija v osobyh sostojanijah soznaniya: istorija, praktika*. Kharkiv: Folio.
- Aleksandrov, Ju. I. (ed.) (2004). *Psihofiziologija*. Sankt-Peterburg: Piter Print.
- Aleksandrovskij, Ju. A., Lobastoe, O. S., Spivak, L. I., & Shhukin, B. P. (1991). *Psihogenija v jekstremal'nyh uslovijah*. Moscow: Medicina.
- Aleksandrovskij, Ju. A., Rumjanceva, G. M., & Shhukin, B. P. (1990). Mediko-psihologicheskaja pomoshh' vo vremja i posle stihijnyh bedstvij i katastrof. *Voenno-medicinskij zhurnal*, 8, 73–76.
- Al'tshuler, V. B. (2010). *Alkogolizm*. Moscow: Gjeotar-Media.
- Barr, C. S., Newman, T. K., Becker, M. L., Champoux, M., Lesch, K. P., Suomi, S. J. et. al (2003). Serotonin transporter gene variation is associated with alcohol sensitivity in rhesus macaques exposed to early-life stress. *Alcoholism: Clinical & Experimental Research*, 27(5), 812–817. doi: 10.1097/01.alc.0000067976.62827.ed
- Behtel', Je. E. (1986). *Donozologicheskie formy zloupotreblenija alkogolem*. Moscow: Medicina.
- Belik, A. A. (2000). *Izmenennye sostojanija soznaniya i psihoterapija. Transpersonal'naja psihoterapija*. Moscow.
- Blednov, Y. A., Cravatt, B. F., Boehm, S. L., Walker, D., & Harris, R. A. (2006). Role of endocannabinoids in alcohol consumption and intoxication: studies of mice lacking fatty acid amide hydrolase. *Neuropsychopharmacology*, 32(7), 1570–1582. doi: 10.1038/sj.npp.1301274
- Bleer, A. N. (2008). *Psihologija dejatel'nosti v jekstremal'nyh situacijah*. Moscow: Izd. centr «Akademija».
- Bodrov, V. A. (2006). *Psihologicheskij stress: razvitie i preodolenie*. Moscow: PER SJe.
- Borghese, C. M., Ali, D. N., Bleck, V., & Harris, R. A. (2002). Acetylcholine and alcohol sensitivity of neuronal nicotinic acetylcholine receptors: mutations in transmembrane domains. *Alcoholism: Clinical & Experimental Research*, 26(12), 1764–1772. doi: 10.1097/00000374-200212000-00002
- Brady, K. T., Tolliver, B. K., & Verduin, M. L. (2007). Alcohol use and anxiety: diagnostic and management issues. *American Journal of Psychiatry*, 164(2), 217–221. doi: 10.1176/ajp.2007.164.2.217
- Egorov, A. Ju. (2002). *Vozrastnaja narkologija*. Sankt-Peterburg: Didaktika Pljus, Moscow: Institut obshhegumanitarnyh issledovanij.
- Enoch, M.-A., Schwartz, L., Albaugh, B., Virkkunen, M., & Goldman, D. (2006). Dimensional anxiety mediates linkage of GABRA2 haplotypes with alcoholism. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*, 141B(6), 599–607. doi: 10.1002/ajmg.b.30336
- Gurevich, P. S. (2012). *Psihologija chrezvychajnyh situacij*. Moscow: Juniti.
- Jellinek, E. M. (1972). *Disease concept of alcoholism*. New Haven: College and Univ. press.
- Kalivas, P. W., & Volkow, N. D. (2005). The neural basis of addiction: a pathology of motivation and choice. *American Journal of Psychiatry*, 162(8), 1403–1413. doi: 10.1176/appi.ajp.162.8.1403

- Karvasarskiy, B. D. (ed.) (2006). *Psihoterapevticheskaja jenciklopedija*. Sankt-Peterburg: Piter.
- Karvasarskiy, B. D. (ed.) (2011). *Klinicheskaja psihologija*. Sankt-Peterburg: Piter.
- Kitaev-Smyk, L. A. (2009). *Psihologija stressa. Psihologicheskaja antropologija stressa*. Moscow: Akademicheskij Proekt.
- Kollin, M., & Godfri, D. (2004). *Izmenennoe sostojanie*. Moscow: Uŕtra. Kul'tura.
- Krasnova, O. V. (ed.) (2004). *Chelovek v jekstremal'nyh i trudnyh situacijah*. Moscow: NPC «Tehnograf».
- Krystal, J. H., Staley, J., Mason, G., Petrakis, I. L., Kaufman, J., Harris, R. A. et. al (2006).  $\gamma$ -aminobutyric acid type A receptors and alcoholism. *Archives of General Psychiatry*, 63(9), 957. doi: 10.1001/archpsyc.63.9.957
- Leont'ev, D. A., & Mohovikov, A. N. (eds.) (2007). *Travma i psihologicheskaja pomoshh'*. Moscow.
- Lichko, A. E. (2010). *Psihopatii i akcentuacii haraktera u detej i podrostkov*. Sankt-Peterburg: Rech'.
- Malkina-Pyh, I. G. (2006). *Jekstremal'nye situacii*. Moscow: Jeksmo.
- Mehtihanova, N. N. (2008). *Psihologija zavisimogo povedenija*. Moscow: FLINTA.
- Michael, A., & Sayette, Ph. D. (1999). Does drinking reduce stress? *Alcohol Research and Health*, 23(4), 250–255.
- Muneer, P. M. A., Alikunju, S., Szlachetka, A. M., & Haorah, J. (2010). Inhibitory effects of alcohol on glucose transport across the blood–brain barrier leads to neurodegeneration: preventive role of acetyl-l-carnitine. *Psychopharmacology*, 214(3), 707–718. doi: 10.1007/s00213-010-2076-4
- Neafsey, E., Collins, M. (2011). Moderate alcohol consumption and cognitive risk. *Neuropsychiatric Disease and Treatment*, 7, 465–484. doi: 10.2147/ndt.s23159
- Nikiforov, I. A. *Faktory, sposobstvujushhie razvitiju zavisimosti ot psihoaktivnyh veshhestv (obzor literatury)*. Available at: <http://www.mediasphera.aha.ru/journals/prof/detail/48/451/>
- Piazza, P. V., Le Moal, M.; Grantand, A. W., Schutz, T. K. (eds.) (1998). *Principles of Addiction Medicine*. American Society of Addiction Medicine, 83–93.
- Pohorecky, L. A. (1991). Stress and alcohol interaction: an update of human research. *Alcoholism: Clinical and Experimental Research*, 15(3), 438–459. doi: 10.1111/j.1530-0277.1991.tb00543.x
- Popov, Ju. V., & Vid, V. D. (1998). Reakcii na stress. Prakticheskij kommentarij k 5 glave MKB 10 peresmotra. *Sovremennaja psihiatrija*, 1, 34–48.
- Razvodovskij, Ju. E. (2006). Alkogoľ i stress. *Medicinskie novosti*, 10, 18–22.
- Romek, V. G., Kantorovich, V. A., & Krukovich, E. I. (2005). *Psihologicheskaja pomoshh' v krizisnyh situacijah*. Sankt-Peterburg: Rech'.
- Rumjanceva, G. M.; Dmitriev, T. B. (ed.) (2001). *Social'nye faktory i psihologo-psihiatricheskie posledstvija avarii na Chernobyl'skoj AJeS*. Moscow, 280–295.
- Saldan, G. M., & Zagurovskij, V. M. (2013). Rol' stressornoj reakcii v klinicheskoj kartine neotloznyh sostojanij. *Medicina neotloznyh sostojanij*, 2(49), 62–64.
- Sel'e, G.; Krepsa, E. M. (ed.) (1982). *Stress bez distressa*. Moscow: Progress.
- Sidorov, P. I. (2008). *Psihologija katastrof*. Moscow: Aspekt Press.
- Sudakov, K. V. (1981). *Sistemnye mehanizmy jemocional'nogo stressa*. Moscow: Medicina.
- Sudakov, K. V. (2003). Prioritet fundamental'nyh issledovanij integrativnoj dejatel'nosti nervnoj sistemy. *Vestnik RAMN*, 9, 3–6.
- Sudakov, K. V. (2005). Individual'nost' jemocional'nogo stressa. *Zhurnal nevrologii i psihiatrii*, 105(2), 4–13.
- Van den Wildenberg, E., Wiers, R. W., Dessers, J., Janssen, R. G. J. H., Lambrichs, E. H., Smeets, H. J. M., & van Breukelen, G. J. P. (2007). A functional polymorphism of the  $\mu$ -opioid receptor

- gene (OPRM1) influences cue-induced craving for alcohol in male heavy drinkers. *Alcoholism: Clinical and Experimental Research*, 31(1), 1–10. doi: 10.1111/j.1530-0277.2006.00258.x
- Vizel', T. G. (2006). *Osnovy nejropsihologii*. Moscow: AST.
- Vorotnikova, A. I., Zabrodina, T. A., & Sorokin, A. S. (2006). Osobennosti techenija stressa po dannym psihofizicheskikh metodik. *Vestnik novyh medicinskih tehnologij*, 3, 141–142.
- Weinshenker, D., & Schroeder, J. P. (2006). There and back again: a tale of norepinephrine and drug addiction. *Neuropsychopharmacology*, 32(7), 1433–1451. doi: 10.1038/sj.npp.1301263
- Witkiewitz, K. (2008). Lapses following alcohol treatment: modeling the falls from the wagon. *Journal of Studies on Alcohol and Drugs*, 69(4), 594–604. doi: 10.15288/jsad.2008.69.594
- Zagurovskij, V. M. (2011). Reakcija na tzhzhelyj stress i narusheniya adaptacii v medicine katastrof. *Medicina neotlozhnyh sostojanij*, 6(37), 98–100.
- Zagurovskij, V. M. (2014). Faktory konsolidacii struktury strategii povedeniya lichnosti v kachestve psihosomaticheskoy patologii. *Visnik problem biologii i medicini*, 1(4), 110–115.
- Zagurovskij, V. M. (2014). *Patogeneticheskaja model' razvitija psihosomaticheskikh narushenij*. Kyiv, 23, 180–187.
- Zagurovskij, V. M.; Nikonova, V. V. (ed.) (2014). *Psihicheskie aspekty distressa*. *Medicina neotlozhnyh sostojanij*. Kharkiv, 7, 320–344.
- Zagurovs'kyj, V. M. (2015). Vnutrishnij konflikt osobystosti v patogenezi poststresornoj dezadaptacii. *Ukrai'ns'kyj visnyk psychonevrologii*, 23(3), 124–125.
- Zozulja, T. V. (2001). *Osnovy social'noj i klinicheskoy psichiatrii*. Moscow: Akademija.
- Zupanec, I. A., Bezdetko, N. V., Derimedved', L. V. (2003). *Farmaceuticheskaja opeka: kliniko-farmaceuticheskie aspekty primenenija alkoholja v medicine*. Provisor. Available at: [http://www.provisor.com.ua/archive/2003/N4/art\\_27.php](http://www.provisor.com.ua/archive/2003/N4/art_27.php)

## **Mass-scale dependence on on-line computer role-playing games as a sign of modern information society**

*Tetiana Vasheka*

PhD in Psychology, Associate Professor, Department of Aviation Psychology, National Aviation University in Kyiv, Ukraine

*Natalia Tsverava*

Psychologist, National Aviation University in Kyiv, Ukraine

---

### ABSTRACT

This article reviews the main characteristics of computer role-playing games and analyses the reasons for their mass appeal. The authors present the results of research of personal characteristics of individuals addicted to this type of games.

*Keywords:* computer role-playing games, computer addiction, information society

---

### **Introduction**

Information society can be defined as a society in which the quality of life, including the prospects for social change and economic development, is increasingly dependent on information and its utilisation. Analysing the deep technological and social consequences of computerisation in various spheres of social life and economic activity, it is obvious that the computer or information revolution has taken place in Ukraine. There are several signs of developing information society: growing significance of information and information technology; increased awareness of the need for computer literacy; widespread adoption of computer and information technology; development and deployment of computerisation and information technologies in social life and education; governmental support for the development of computer microelectronic and telecommunication technologies. There are also negative manifestations of information society like widespread computer viruses

and malware. Computer games are also attracting large numbers of young people, teenagers and children.

In the modern Ukrainian society, various computer games, including on-line games, have become very popular. The first computer game "Tennis for Two" was invented by an American scientist William Higinbotham in 1958. Two people toss a ball to each other through a bar in the middle of the screen, which was a mesh on the screen of the oscilloscope. Then came the gaming consoles – «Dandy», «Sega», «Sony Play Station». There were TV programs discussing the latest novelties in the world of games and revealing various hints how to play them. Obviously, the graphic and sound in these games left much to be desired, but game consoles as such were considered a sign of prosperity of a family. Children cooperated in groups and organised gaming sessions in turns during the day and at night (Voyskunsky, 2002).

The gaming wave took hold of both children and adults, especially men, who found great pleasure playing with gadgets. In a short time, more powerful computers, which were previously used only in the world of technology, came to the mass market. With the advancement of these computer technologies, the number of computer fans or gamers increased drastically. The main activity of these people is playing computer games. In other manifestations, gamers usually behave like emotionally stunted people, not interested in anything other than satisfying their own physiological needs. It is obvious that such a description is suitable only for those who cannot live without virtual reality. The numbers of people in this pathological state are constantly increasing (Voyskunsky, 2002). Society has distinguished a new class of people, i.e. computer game fans. Therefore, a question arises what it is exactly that attracts players in modern computer games?

Gaming is a form of self-expression. Every slain monster, solved riddle or passed level boosts players' self-confidence. In turn, too difficult a scenario or an unsolved rebus can lead to a bad mood even if the gamer is a well-balanced person. There are cases when gamers in a state of agitation break their computers and destroy everything around them. In rare cases, they cause serious bodily harm to other individuals (Yuryeva & Bolybot, 2006).

A person voluntarily glued to their computer starts facing problems with reality. Social adaptation is disrupted, it becomes difficult for such a person to find common language and topics with other people. Such socially important things as career, work, family stop being of importance for such a person, having shortly a negative effect on educational, social, professional, family and financial spheres of life. In addition to psychological and emotional problems, physiological ones become visible: headaches, blood pressure changes, pain and dryness of the eyes and rheumatic ailments. Hours-long sitting in front of the screen may lead to visual impairment, reduced immunity, fatigue and insomnia. In addition, spending a great deal of time in the sitting position adversely affects the spine, which causes back pain and postural defects. Another condition computer users suffer from is the carpal tunnel syndrome. This disorder is manifested by pain in the wrist caused by intense repetitive movements associated with the use of a computer keyboard and mouse (Shapkin, 2007).

Computer games offer to the individual an opportunity to escape from unpleasant reality, fulfill their wishes, feel important, strong and empowered as well as to experience new emotions. In the virtual world, one can simply change the age, gender, appearance and biography or even create a new history of their own life. These experiences can lead to an addiction.

In some cases, people merge reality with virtual reality and start acting or thinking in a new way, which is sometimes manifested by growing aggression. Especially dangerous symptoms of computer addiction are observed in children and adolescents. While playing games which are sometimes very cruel, the young begin to perceive real life as a computer shooting game. In almost all virtual games, there is a feature of resurrection of the hero. Thus, the child can develop an idea that all actions in life can be repeated and replayed again. This leads to a sense of permissiveness, low-value of one's own and others' lives and to social retardation (Yakushina, 2001).

Addicted gamers are frequently people with certain personal experiences and problems, such as low self-esteem, lack of personal life or failure connected with it, misjudgment of values and general disappointment in life. Therefore, a computer and everything connected with it becomes really important. The more realistic the graphics and details of the game, the higher the level of addiction to the game.

An important fact is that the vast majority of computer games make an "aggressive executioner" of a player. During the game, it is necessary to kill opponents. Today's games are extremely realistic in showing in detail human body, blood and everything that accompanies violence (Voyskunsky, 2002). Things like power over someone else's life and death and possibility to kill with impunity during the game attracts violent people, who are prone to violence and who can thus realise their aspirations in a safe way.

## **Massively Multiplayer On-line Role-Playing Game (MMORPG) Features**

MMORPG (Massively Multiplayer On-line Role-Playing Game) is a special kind of game that combines the elements of a game in a real time and simultaneous communication with an unlimited number of people. The most popular are Lineage II, World of Warcraft, Aion, Arche Age and Eve On-line. These comprise an incredibly huge industry, in which significant funds are involved.

In general, modern computer games can be divided into the following categories: role-playing and non-role-playing games, on-line and off-line games (Shapkin, 2007). This study will consider on-line role-playing games, due to their extraordinary popularity and an increasing number of fans.

The main quality of computer role-playing games is their extensive influence of the player's personal "entry" into the game in order to disconnect from reality. Computer role-playing games can be divided into the following types: first-person games, third-person games and management games.

The first-person games are characterised by a huge potential of "dragging" or "entering" by the player into the virtual world. Their main feature of the game is that the first person perspective gives its participant a visible fusion with a computer hero and a total submersion into the role. For even a short period of time, the player begins to move away from reality, focusing only on their virtual reality. The player can take the game seriously and transpose the qualities of their character into the qualities of the hero. These include games such as S.T.A.L.K.E.R., Sniper, and Fallout.

Playing from the perspective of a third party makes the player less "ingrained" in the role. The participant sees their heroes from the position of a third-person and manages their actions. Identification of oneself with a virtual hero does not happen so clearly.

The motivational involvement and personal experiences are not expressed in the same way as in games with a first-person perspective.

The peculiarity of managerial games is that the participant is given the right to direct the activities of computer heroes subordinate to them. Plunging into the game, they can become the head of all sorts of specifications: a commander of the special forces squad, a commander-in-chief, a president of the state, even a god who directs historical processes. At the same time, the participant does not see their virtual character on the monitor, but they devise their own role. This is the only type of role-playing games, where the role is not specifically defined, but is invented by the participant. Thanks to this, the maximum immersion into the game and their role is observed among very imaginative people. However, emotional involvement in the gameplay and the acquisition of psychological needs in the game are just as strong as in other role-playing games. At present, the most popular management games are: Caesar IV, Civilizacia, CivCityRome.

The first computer games with the support of the network or on-line mode appeared in the mid 1990s. They are so successful, because now the game is played with real people, and not with programmed opponents (Shapkin, 2007, p. 43). At the moment, there are many on-line games: Lineage II, Aion, Perfect World, World of Warcraft, EVE on-line, Arche Age and others. Almost immediately, players begin to team up and run competitions.

Today officially recognised e-sports are developing rapidly and gaining popularity. The number of fans is the same as the number of fans of popular sports competitions. Cybersport is a mass movement, involving a huge number of people of different nationalities, ages, religions and citizenship, and probably from year to year its popularity will only grow due to the increase in the number of personal computers. The power of modern computers is constantly growing and with it computer games are expanding their influence. New hits are emerging on the gaming market, gradually replacing old games.

Why are network games gaining increasing popularity? Network games are a special kind of games that combine the game and direct communication with another person or with many people. Thus, they attract a huge number of users. They are fond of on-line games with completely different “virtuals” depending on the variety of the game, its availability for the “pioneer” or the conditions existing there, etc. Psychologists call this interest in (or addiction to) computer games the internet gaming (cyber) addiction. “Addictive realisation” is a departure from reality. According to psychologists, developers of computer games make bets and expect exactly such a “withdrawal” (Yuryeva & Bolybot, 2006).

MMORPG is a computer game in which the characteristics of role-playing games are combined with those of mass online games. MMORPG can also be presented in a browser-like form, but the main feature of this game is the interaction of a large number of players within the virtual world.

As in any other role-playing game, the player assumes the role of a character (often referred to as a fantasy or sci-fi) and begins to manage a variety of their actions. MMORPGs differ from single-player or small multi-user role-playing online games not only by the number of players, but also by the continuous gaming world (supported by the publisher of the game), which exists regardless of the exit of the individual player.

MMORPGs are played around the world. Worldwide MMORPG revenues in 2005 exceeded \$500 million. By 2008, subscription fees for Western players rose up to US \$1.4 billion. World of Warcraft, a popular MMORPG, in 2013 had more than 7 million players. After launching StarWars in 2011, The Old Republic was declared “the most rapidly devel-

oping MMORPG in history”, due to the fact that more than 1 million players subscribed in just 3 days.

Modern MMORPGs are very different from the early ones, but they all share a number of basic features. These include the continuously existing gaming environment, various forms of character development, social gaming interactions, the culture of the game world, features of architecture, membership in the group and personalisation of game characters.

Almost in all computer games the main goal of the player is to develop their character. This usually involves collecting experience points and using them to increase the character’s “level”, which positively affects all his/her abilities. Traditionally, the main way to gain experience points is to hunt monsters and complete quests. The characters can participate in these actions in groups or alone. The accumulation of wealth (including items useful in combat) is in itself also an element of development in the MMORPG and is most often achieved in battles. The game cycle, due to these principles (battles that open access to new items, which in turn open access to new battles, etc. without significant game play changes), is sometimes compared in a negative way to a running wheel for rodents and known among players as a “grind”.

In some MMORPGs, there is no maximum level defined, which allows players to collect experience points indefinitely. In such MMORPGs, the most developed characters are often prized on the site of the game, their names and scores are presented on the pages of the highest gaming achievements, etc. Another common practice is to set the maximum level of the game character, which is often referred to as the “top level”. After its achievement, the character development strategy changes. Instead of a reward in the form of experience points, the character after completing tasks and passing levels will receive game credits or equipment, allowing to keep the player’s motivation for further game.

Often, with the development of the character, the benefits may include more and more equipment available, grants in the form of more appealing look as well as appraisal of a particular character’s achievements. These sets of weapons and armour, known in the gaming environment as “high-level”, add greatly to the character’s competitiveness, both in typical boss battles and in fights between players. The motivation of players is based on the desire to outsmart others in possessing similar objects, which constitute the determining factor in the success of all battle-related events.

Also typical for the genre is the emergence of the need for players to unite into groups to ensure the optimal speed of development. Sometimes this leads to a change in the priorities of a player, who begins to avoid some real-world events in order to “keep up” with the events of the virtual world. A good example in this case is the need to exchange items to achieve a specific goal or win a team battle against powerful enemies.

MMORPG necessarily contain certain means to facilitate communication between players. Many MMORPGs are a system of guilds or clans designed for their users. In the event that the game mechanics are not provided, players can independently form such associations, including non-game media. As a rule, such communities interact exclusively through the Internet, but sometimes cellular communication is used, usually as an “emergency” way to gather comrades on-line urgently. There are also gaming communities organised on a territorial basis or based on real social connections, for example friends (sometimes relatives), neighbours in the hostel, students of one school, etc.

As a rule, Game Moderators or Gamemasters, often called “GM” players, are presented in MMORPGs. They can be both employees of the game publisher and volunteers, whose



task is to supervise the gaming world. Some moderators may, however, have access to tools and information that is not intended and inaccessible to other players and roles.

There are discussions in various gaming media about the long-term impact of game abuse. The forums of the non-profit organisation On-Line Gamers Anonymous are full of stories about players who have abandoned their social and family responsibilities or who have lost their jobs because of their “virtual life”.

Despite the fact that the gaming universes are virtual, the relationship between people within them is quite real, that is why MMORPG is a good tool for psychological and sociological research. Clinical psychologist Sherry Turkle conducted a survey of computer users, including computer gamers. She found that many of these people developed a broader emotional sphere, since they experienced many different roles (including the change of sexual identity) that are offered in many MMORPGs.

In their work, Zaheer Hussain and Mark Griffiths note that about one fifth of players (21%) answered that online social relations are better than real ones. A significantly larger number of male players than female ones answered that they consider communication in the network easier than in reality. More than 57% of players play characters of the opposite sex, noting that the female character has a number of positive social features.

Game addiction cannot be confused with the Internet addiction, computer gambling or gaming addiction. Despite the fact that the primary “lure” to the game is the mechanism of operant conditioning (“gift” in the form of game currency or the possibility to improve the characteristics of the virtual hero when entering the game or passing through any of its stages), further consolidation of addiction occurs in other ways that form a far more stable game behaviour.

The fact is that the specificity of on-line games consists in the ability to interact with many real players at a time. It should be noted that game addiction is the only form of addiction in which the individual does not lose, but rather acquires a subjectivity, while more harm is caused not to the player themselves, but to their social environment. If we do not consider this kind of addiction as a real addiction, we should note that in situations of interpersonal communication it is unacceptable for one party to focus on a game or on a virtual partner with a greater attention than on a real life communication partner. On this basis, we can assume that the marker of the game-addiction is appearance in the network of a communication circle, which at a certain point becomes more important than people in real life. This happens after and as a result of adaptation to the rules and norms existing in the game, i.e. the person begins to take efforts to solve game tasks for interpersonal interaction with partners.

The small number of psychological studies of players who are addicted to MMORPG led us to an attempt to establish what kind of personality traits are inherent to these gamers.

## **Research methodology and organisation**

- **The purpose of the research:** to investigate the personality features of individuals who are dependent on on-line computer role-playing games.
- **Object:** addiction to online computer games.
- **Subject:** personal features of individuals who are dependent on on-line computer role-playing games.

- **Group of respondents:** 58 people aged 16 to 40 playing different MMO RPG games were selected to study the addiction to on-line computer role-playing games. In order to distinguish addicted individuals, the respondents were given a questionnaire and underwent a computer-dependence test by L. Yuryeva-T. Bolbot.
- **Psychological diagnostic methods:** The method of screening diagnostics of computer dependence by L. N. Yurieva and T. Yu. Bolbot is a screening questionnaire aimed at detecting cyber addiction. It was developed and adapted for use in the Russian-speaking environment and enables the detection of not only the existing addiction (stage II of the addiction), but also the initial addiction (stage I), and the one that is just being formed (pre-addiction, attachment).

We used the Mini-Mult questionnaire, Personal Questionnaire «BigFive», the Eysenck's Personality Inventory (EPI) for the diagnosis of personality traits of respondents, the Spielberger-Khanin Anxiety Scale designed for characterisation of responsive and personal anxiety, and also the Differential Questionnaire of the Experience of Loneliness by E. N. Osina and D. O. Leontiev.

## Study results

The results of the questionnaire showed that 82% of respondents had been playing for more than 6 years, most of whom spending 2 to 6 hours a day playing, while some individual gamers specified the playing time up to 12 hours a day. To the question "Do you consider game as an important part of your life?" 12% answered "yes", and 36% said that "more yes than no". Among the physiological symptoms that are characteristic of a computer addiction, 26% of the respondents noted increased fatigue and back pain, another 20% reported eyesight problems and the carpal tunnel syndrome was observed in 10% of them.

Also important for the study was to determine whether the respondents put money into the game. Given the scale of gaming industry, such information makes it possible to assess to what extent a person has fallen under the influence of game developers. It was established that 51% of the respondents sometimes put small amounts of money in the game, 20% bought out a premium account. The difference between these categories is that some games can be played on the condition that the player pays a monthly subscription fee. And the first category includes non-mandatory payments, that is players invest money in their entertainment or in certain benefits. 24% say they do not invest in the game. In fact, there is such a category of players who in principle do not invest in the game. By doing so, they try to separate real life from the virtual one.

A comparison of respondents with a dependence on computer role-playing games and the control group showed that significant differences between the groups with respect to the Mann-Whitney criterion were established on the scale of depression and paranoia by the Mini-Mult questionnaire. In the group of gamers, higher rates of depression and paranoia are observed, which characterises them as individuals escaping from the states of reduced mood, depression or hopelessness by playing games. The game brings positive emotions to them, improves their mental condition, perhaps due to the release of adrenaline or emotionally rich gaming situations, which also inspires them to play the game constantly.

The paranoid type of gamers are prone to constant suspicion. These people are narrow-minded, aggressive and mean. Those who do not agree with them or have a different opinion are either stupid or belong to an enemy. They are actively aggressive about these views and have frequent conflicts with others. They always value their own best. Such people often have difficulty functioning in real life. Therefore, getting into the world of online computer games, they get the opportunity to fulfill their desires. The player can become a hero known to the whole world, gain unlimited power, etc. Highly paranoid individuals have the opportunity to realise these needs in the virtual world.

Additionally, for those who were addicted to on-line computer role-playing games, high neuroticism [according to Eysenck's personality Inventory (EPI)] and high level of personal anxiety (based on the Spielberger-Khanin Anxiety Scale) were characteristic. Neuroticism manifests itself by excessive emotionality, impulsiveness, instability in contacts with people, variability of one's interests, lack of self-confidence, sensitivity, vulnerability and irritability. Neurotic personality is characterised by inadequately strong reactions relative to the stimuli that cause them. A person who is emotionally labile and highly anxious perceives a wider range of stimuli as a threat to their inner world. To ease their mental state, such people may decide to escape from their problems to the virtual world, perhaps because the real world is a threat to them and in the game they feel confident and safe. Therefore, in order to fulfill their social needs, they choose the world of on-line computer games.

To understand better the reasons for escaping into the virtual world of computer games, we applied the Differential Questionnaire of the Experience of Loneliness by E. N. Osina and D. O. Leontiev. The results revealed that respondents with a clear dependence on computer games are more likely to experience an actual sense of loneliness and a lack of close communication with other people. Despite having a lot of "friends" in the game and exchanging unlimited virtual communications, the players do not experience non-verbal, tactile and intimate communication, and it is well known that the communication at the level of gestures, facial expressions, touches, hugs and feelings adds a lot to a person's sense of support and belonging. This includes proximity as a requirement for satisfactory communication. It is impossible to transfer non-verbal information through computer on-line games. This explains the desire to meet other players in the real world. This can be seen on the example of the set of so-called "walkways", where players come from different parts of the world to meet in a physical location.

## **Conclusions**

Summing up, we can assert that on-line computer role-playing games attract more and more fans every day. They spend their time, health and money for pleasures found in virtual reality. They often lose the opportunity to develop and improve themselves in real life by limiting interpersonal communication and contacts with close friends and their local community.

Games such as MMORPG have their own peculiarities that allow attracting and retaining players' attention, namely interaction of a large number of players within the virtual world, continuously existing game environment, various forms of character development, social gaming interactions, game world culture, game architecture features, membership in the group, personalisation of the game characters, the need to gather players into groups

and ways to facilitate communication between players. A marker of the game addiction is the emergence of a network of communication circles, which at a certain time becomes more significant than people in real life.

The results of the study show, that, depression, paranoia, neuroticism and personal anxiety are characteristic of people dependent on on-line computer role-playing games, and this pushes players towards virtual reality, which allows them to improve their emotional state and avoid problems. In our opinion, the promising direction of the study of game-addiction may result in psychological correction of negative emotional states and a program of training for gamers to cope with them and avoid excessive involvement in the virtual world of computer games.

## References

- Ivanov, M. (2003). Influence of computer role-playing games on the formation of psychological dependence of a person. *Psychological Journal*, 24(2), 89–95.
- Shapkin, S. A. (2007). Computer game: a new area of psychological research. *Psychological Journal*, 1, 86–102.
- Voyskunsky, A. E. (2002). Internet addiction: the actual problem. *Journal of Neurology and Psychiatry*, 3, 22–30.
- Yakushina, E. V. (2001). Adolescents and the Internet: the specificity of information interaction. *Pedagogics*, 4, 34–46.
- Yuryeva, L. M., & Bolybot, T. Yu. (2006). *Computer addiction: formation, diagnostics, correction and prevention*. Dnipropetrovsk: Porogy.

## **Ethical principles of psychologists' activities represented in the ethical code and views of psychologists and clients**

*Tetiana Yablonska*

PhD, Doctor of Psychology, Taras Shevchenko National University of Kyiv

*Natalia Bulatevych*

PhD in Psychology, Taras Shevchenko National University of Kyiv

---

### ABSTRACT

The article discusses the ethical principles of psychologists' activities. The basic provisions of the ethical codes of professional psychological associations are analysed and problems of modern psychological practice related to ethical issues are outlined. The performed empirical research has revealed views of a group of psychologists and clients as to the ethical principles of psychological work and important aspects of counselling. The study has shown differences in the views of psychologists and clients, which can be explained by different perception of counselling procedures. The article concludes that ethical requirements, while not being the subject of psychologists' work with their clients, provide the conditions fundamental for effective psychological assistance.

*Keywords:* ethical code of psychologists, ethical principles, respect for a person's rights and dignity, competence, responsibility, integrity

---

### **Introduction**

Psychologists' services become increasingly significant in modern society, because they solve many problems in many different areas, including professional development and organisational counselling, psychological support for education, psychoprevention; psychological assistance in solving personal and family problems, and psychological assistance to

people in difficult life situations. The psychologists' activities are expanding and changing today – in terms of fields of application, subject matter, and ways of providing services. For instance, online counselling or psychological-educational sessions in the form of webinars are quite common now. Additionally, new approaches and forms of work at the intersections of different areas appear.

Such challenges of modern times are a difficult task for psychologists, they need to improve their professional skills and, of course, to adhere to high professional standards in their work, above all ethical ones. It is obvious that professional standards, professional ethics ensure the quality of psychological services, and protection of the interests of both psychologists and their clients. Development and observance of clear professional standards and ethical principles are especially important in the situation of general social destabilisation in Ukraine, where the number of people in need of psychological assistance has increased significantly over the past few years.

**The purpose** of this article is to analyse the modern ethical principles of psychologists' professional activities, as well as to perform an empirical study concerning ideas on ethical values expressed by both psychologists themselves and their clients.

## Theoretical background

As the researchers emphasize, the profession of a psychologist is extremely difficult, socially significant, and therefore requires development of additional, also moral, mechanisms for regulation of professional relations and professional work (Myagotin, 2011).

Professional ethics means a system of moral norms, values, principles of behaviour that specify the requirements for objectives, tasks and conditions of a certain type of work, and serve as an internal regulator of behaviour and relationships in the community of professionals (Myagotin, 2011). The ethics of psychologists' work is based on universal moral values, including free and comprehensive development of a person and respect for him/her, intimacy of people, creation of a just, humanitarian, and prosperous society. The ethical principles and rules of the psychologists' work form the conditions under which their professionalism, humanity of their actions, respect for people, and the real value of their efforts are preserved and increased (Krylov & Yuryev, 2000).

At the same time, according to many researchers (Myagotin, 2011), ethics in the work of modern psychologists often has a diffuse nature: psychologists rely on their own intuition in choosing behavioural styles in complex and ambiguous work situations. The lack (or excess) of legislative regulation concerning psychologists' services, certain declarative ethical principles, coupled with the lack of professional experience of a psychologist who is not supported by any professional community, can lead to errors and violations of ethical norms.

Awareness of the importance of ethical regulations in psychological practice has stimulated the international professional community to develop ethical norms of professional psychological work.

A powerful impetus to develop ethical norms and standards for the professional community came from the European Federation of Professional Psychological Associations (EFPPA) in 1981, when representatives of 12 psychological associations from different European countries joined their efforts to improve professional communication and develop

psychological practice. The EFPPA Code of Ethics includes provisions governing the professional activities of psychologists which are united into 4 general principles:

**Respect for a person's rights and dignity** means awareness of and respect for the knowledge, insight, experience, and areas of expertise of clients; awareness of individual, cultural, and role differences; avoidance of practices as a result of unfair bias, which may lead to unjust discrimination; confidentiality; work based on a client's informed consent; maximisation of the autonomy and self-determination for the client.

**Competence** means awareness of the limits of competence derived from education, training and experience, awareness of the limits of procedures for particular tasks, and the limits of conclusions that can be derived in different circumstances and for different purposes; professional development; obligation not to practise when ability or judgement is adversely affected, including temporary problems.

**Responsibility** means psychologists' responsibility for the quality and consequences of their professional actions, promotion and maintenance of high standards; avoidance of the misuse of psychological knowledge or practice; responsibility towards a client, which continues after the formal termination of the professional relationship.

**Integrity** means awareness of professional limitations, honesty and accuracy, accuracy in presenting information, hypotheses, conclusions, and opinions expressed in professional reports and statements; avoiding double relationships with a client in financial issues of counselling/psychotherapy (Meta-Code of Ethics)<sup>1</sup>.

In 1981, *the American Psychological Association* (APA) adopted "Ethical Principles of Psychologists and Code of Conduct", a kind of code of professional ethics. These Principles outline the general principles and requirements for psychologists; regulate their activities and relationships with clients and the professional community. The most important among them are: competence, integrity (honesty, justice and respect for others), professional and scientific responsibility; respect for people's rights and dignity; concern for other's well-being; social responsibility (Ethical Principles of Psychologists and Code of Conduct)<sup>2</sup>.

Issues of ethical support for research and practice evolved into the Universal Declaration, which was adopted by the Assembly of the International Union of Psychological Sciences in Berlin (2008) and formulates the basic ethical principles of psychologists' activities. They are as follows:

- Respect for the Dignity of Persons and Peoples
- Competent Caring for the Well-Being of Persons and Peoples
- Integrity
- Professional and Scientific Responsibilities to Society (Universal Declaration of Ethical Principles for Psychologists)<sup>3</sup>.

Thus, the ethical principles of psychologists' activities are sufficiently logical and consistent in the documents of authoritative international professional associations.

*In Ukraine*, the issue of ethical standards for psychologists' professional activities is being developed both by scientific and educational institutions and professional associations of

---

1 <http://ethics.efpa.eu/metaand-model-code/meta-code>

2 <http://www.apa.org/ethics/code/code-1992.aspx>

3 <http://www.iupsys.net/about/governance/universal-declaration-of-ethical-principles-for-psychologists.html#pream-ble>

psychologists. The important date for Ukrainian psychology was 1991, when the I Congress of the Ukrainian Psychological Society adopted the ethical code consisting of seven parts: responsibility, competence, protection of client's interests, confidentiality, ethical rules of psychological research, qualified popularisation of psychology, and professional co-operation (Ivanova, Korsun & Moskalyuk, 2013). Since then, various psychological associations have been established in Ukraine to unite intensely the professional community, establish contacts with international organisations, clarify the ethical principles of psychologists' work, and improve professional standards.

The issues of the ethical principles of psychologists' activities, the underpinning values of their work are actively discussed in psychological studies (Bondarenko, 2012; Bocheliuk & Zaritska, 2007; Bulatevych, 2015; Corey, Corey & Callanan, 2007, Vorobyeva, 2009). The scientists note that psychologists' professional activities are bound to work with a person's inner world and personality, which requires observance of special principles and rules of ethics. According to the researchers (Karandashev, 2000), the most important principles of psychologists' professional ethics are:

1. Professional competence: a psychologist must know their rights and duties, professional capability and act only within their professional competency.
2. Non-infliction of harm to a person: a process and results of a psychologist's activities should not harm the health, state, social status, and interests of a person. Therefore, the psychologist should use safe and most appropriate methods, working techniques, and tools, safely formulate recommendations, diligently organise the storage, use and publication of research results.
3. Objectivity: a psychologist must hold an objective position, in particular by applying standardised, reliable, valid, adapted techniques that are adequate to the goals and conditions of the problem, clients' age, sex, education, and condition, as well as use methods for data processing and interpretation that obtained scientific recognition.
4. Respect toward a client: a psychologist must respect the dignity of their clients and show honesty in communicating with them.
5. Professional confidentiality, in particular confidentiality of psychological diagnostic methods, prevention of their incorrect or unethical application, confidentiality of psychological diagnostic results.

At the same time, the researches emphasize that the declared ethical principles are merely general recommendations for psychological practice and cannot be the ultimate truth. No ethical code can determine what is correct or best in a particular problematic situation, but it is a good basis for making such decisions and the ethical code fulfils the following important functions:

- teaches both counselors and their clients, as well as a wider public the functions and responsibilities undertaken by a psychologist;
- the responsible practice is based on the ethical code, as well as the ethical code protect clients from unethical actions of a counselor;
- the ethical code is the basis for a psychologist's reflection and perfection (Corey, 2016).

As for today, many ethical problems of psychologists' activities remain unresolved. Thus, excessive regulation of such activities leads to psychologists' decisions being too formalised.



In countries where abuse during psychological counselling is legally punished, in order to avoid the risk of litigation psychologists act in compliance with the minimum requirements, not trying to find the best solution for a particular client in a particular case. Such an approach affects the effectiveness of psychological assistance and shows how the modern practice is characterised by ethical contradictions. In essence, the psychologists' professional ethics is divided into "*mandatory ethics*", which is the minimum of ethical rules and guidelines to be followed by psychologists, and "*aspirational ethics*", which is that level of compliance with ethical guidelines when a psychologist acts in the client's best interest (Corvey, 2016).

There are other aspects of psychologists' activities related to ethical issues:

- incorrect assessment and psychological diagnostics in counselling (psychotherapy) may result in a wrong diagnosis; therefore assessment should be balanced and justified, provide a holistic assessment of a person, from psychological, physical and spiritual perspectives, and take into account the biological processes underlying psychological symptoms;
- a formalised, technological approach involving short and standardised interventions, which is applied only because insurance companies tend to limit therapies, is effective in the treatment of some disorders. A number of ethical questions appear at this point: Does an insurance company's desire to save money at the cost of the real needs of clients? Are the recommended techniques sufficiently reliable and valid, especially in cases when clients have existential problems that do not fit into any classification of mental disorders?
- an insufficiently defined attitude of the professional community to multiple relationships in counselling (combining the roles of a teacher and a therapist, a supervisor and a therapist, counselling of friends, employees, relatives, common business with a client, etc.). Sexual intercourse is recognised unequivocally unethical (Corvey, 2016).

Ukrainian researchers emphasis: since the consequences of communicating with a psychologist have a great personal significance for a client, compliance, or lack of it, with the ethical principles of professional activities influence the counselling results, developing or destroying client's identity (Bocheliuk & Zaritska, 2007). The most typical ethical problems (dilemmas) faced by psychologists in their work are:

- temptation to exercise power as an opportunity to make people dependent in order to satisfy psychologists' own needs;
- the problem of distribution of responsibilities between a psychologist and their client;
- the problem of "professional trends", manifested in the pursuit of new methods and techniques; this approach prevents a psychologist from mastering these methods perfectly;
- the problem of excessive experimentation with the methods of assistance and using clients as "a material" for scientific research, which puts aside a client's actual needs;
- temptation of speculations concerning the absence of generally accepted criteria for assessing the effectiveness of counselling, which creates the risk of a unprofessional psychologist's performance.

A psychologist's position of patronage and guardianship, which in many cases leads to an estimative position toward their clients and stereotypical responding to a situation, also belong to manifestations of unprofessionalism and violation of professional ethics. Demonstration of superiority, didacticism, directionality, snobbery, provocation of confrontational relationships are unacceptable for psychologists (Bocheliuk & Zaritska, 2007).

All these problems belong to the sphere of psychologists' professional ethics but do not have simple answers. A psychologist internal work and professionalism should be manifested in their ability to independently find answers to complex moral issues.

## Methodology

In order to empirically study the views of psychologists and clients on ethical norms, the author's questionnaire was used, in which statements and questions were formulated based on the psychologists' ethical code. The questionnaire includes the questions requiring open answers from the respondents (in the form of unfinished sentences), and the wording reflecting the basic requirements of the ethical code with a proposal for their evaluation.

The following statements were made for psychologists to complete: "The ethical values in my work are ...", "Working with a client, as a psychologist I am responsible for ...", "As for me, it is inadmissible and unethical in psychologists' work...", "The following actions of psychologists-counselors reduce trust and discredit the psychologists' profession...". Clients were asked to complete the following sentences: "The most valuable in the process of consulting for me was ...", "I think that the following is inappropriate and unethical in the psychologist's work: ...", "It is difficult for me to turn to a psychologist who ...", "The following actions of psychologists-consultants reduce my trust to the psychologists' profession...".

Also, the psychologists and clients were offered a list of aspects of psychologists' work with a request to assess their importance on a 5-point scale, which included: "creating an atmosphere of trust during counselling", "emotional support", "a counselor's experience", "advising the client after termination of the counseling", "confidentiality", "respect for clients as persons irrespective of their social, religious, ethnic background", "discussing with clients the work plan and techniques to be applied", "professional experience", "clear and simple terms of organisation and payment for counselling to the psychologist", "clarification by psychologists of their responsibility".

The four categories from the Ethical Code of the European Federation of Professional Psychological Associations (EFPPA)<sup>4</sup> were used in content-analysis of the psychologists' and clients' statements: respect for a person's rights and dignity, competence, responsibility, integrity. The methods of content analysis of unfinished sentences were used for data processing, together with linguistic and semantic analysis of a statement frequency (Glukhov, 2008; Tarasova & Cheremukhin, 2017), Student's t-criterion, and Pearson correlation coefficient.

---

4 <http://ethics.efpa.eu/metaand-model-code/meta-code>

## Results

The psychologists' and clients' views on the important ethical aspects of psychologists' professional activities were studied as a result of the performed empirical study. The empirical study was carried out on 46 psychologists aged 22 to 59 years, an average of 38.7 years, having a work experience of 1 to 34 years, average experience of 12.6 years, and 45 clients aged 24 to 46 years, an average of 35.5 years.

The survey analysis allowed us to determine a number of characteristics describing the psychologists' views upon ethical values and standards in their professional activities (Table 1).

Table 1 *The psychologists' views as to ethical values and standards in their professional activities*

<i>Ethical values and standards</i>	<i>% of psychologists mentioned this characteristic</i>
Confidentiality	78.26
Respect for a client	78.26
Professionalism and understanding of own competence limits	60.86
Unbiased attitude towards a client	30.4
Inadmissibility of directives, instructions, tips	30.4
Subjective well-being of a psychologist	26
Psychologist's work with their own personal problems	26
Observance of the limits during counselling (a contract)	26
Responsibility for used techniques, methods	26
Good organization of counselling conditions	21.7
Customer safety	21.7
No harm to a client	17.3
Creating conditions for a client's personal development	21.7
Responsibility for a client's mental health	4.3
Ecology	4.3

The psychologists have pointed out that the following actions are inappropriate and unethical in psychologists' work, as they decrease confidence and discredit their profession: multiple relations with a client, when a psychologist and their client has not only therapeutic relations, but, for example, family, friendly, business connections (47.8% of the respondents), imposing own views on the client (34.7%), manipulating clients (21.7%), discrediting the profession by the use of non-scientific methods, esotericism (17.3%), criticism of colleagues (8.7%), lack of sufficient professional education (8.7%), making diagnoses on the basis of a certain typology, which leads to a formal and biased attitude towards them (8.7%).

The four categories from the Ethical Code of the European Federation of Professional Psychological Associations (EFPPA) were used in the performed content-analysis of

the psychologists' statements: *respect for a person's rights and dignity, competence, responsibility, integrity*. The presence of the category in an analysed unit, as well as frequency of their use were recorded in the analysis procedure.

As a result of the analysis, it was found out that the statements related to the category of *respect for a person's rights and dignity* constitute 37.2% of all statements, they are mentioned by 95.7% of the surveyed psychologists.

As much as 25.62% of the statements were categorised as *competence*, and 78.3% of the surveyed psychologists pointed out the importance of standards pertaining to competence.

Only 7.43% of all the statements belong to the category of *responsibility*. The psychologists' responsibility as the ethical value and standard of professional work is highlighted in the responses of 47.8% of the surveyed psychologists.

The statements belonging to the "*integrity*" category make up 23.14% of all statements and 82.7% of the surveyed psychologists mentioned them.

The analysis of frequency of statements classified into a certain category allows us to speak of a peculiar "rating" that represents the values and ethical norms of professional activities in the psychologists' views. Hence, the standards related to *respect for a client* are the most important, the principles and standards described by the categories of *competence* and *integrity* are rated a bit lower, and *responsibility* has the lowest importance.

The performed analysis has revealed statements difficult for categorisation and describing an emotional, "human" side of the relations between psychologists and their clients. These are the following concepts: indifference, trust, emotional comfort, a stable emotional state, emotional and mental inclusion, openness, acceptance, and faith in a client. These statements make 6.61%, but they are mentioned by 47.8% of psychologists, which indicates the significance of emotional aspects of their activities.

The clients' views on ethical principles and important aspects of counselling are presented in Table 2.

Table 2. *The clients' views on ethical principles and important aspects of counselling*

<i>Ethical values and important aspects of interaction with a psychologist</i>	<i>% of clients mentioned this characteristic</i>
Understanding the essence of a client's problem	66.5%
Emotional support and attention	66.5%
Psychologist's advice and recommendations	43.4%
Respect and correctness in relationships	43.4%
Psychologist's desire to help	32.3%
Competence	23.2%
Confidentiality	11.2%
Client's trust and respect for a psychologist	11.2%
Unbiased attitude of a psychologist	11.2%

The performed content-analysis of the clients' responses with the above categories shows that 20% of all statements are classified as *respect for a person's rights and dignity*, and 53.3% of the respondents mentioned this category in their answers.

The study showed that 18.3% of the statements belong to the category of *competence*; 40% of clients considered this characteristic of a psychologist's professional competence important.

The *responsibility* category covers 3.33% of all statements; 22.2% of the interviewed clients emphasised various aspects related to psychologists' responsibility.

Finally, 5% of all clients' statements belong to the *integrity* category, 13.3% of the polled clients indicated importance of this category.

A number of clients' responses as well as psychologists' answers describe the emotional side of the relationship between a psychologist and their client. They make up 46.67% of all content-analysis units and 86.7% of the respondents gave answers indicating their high significance.

In addition, there are clients' statements stressing the importance of advice and recommendations made by a psychologist; they make up 6.67% of all answers. As 26.7% of the clients mentioned it, obviously, recommendations for a part of the surveyed clients have a significant value.

As for unethical moments of psychologists' activities and actions reducing trust in them, the surveyed clients mentioned a young age of a psychologist ("does not have children", "has no experience", 32.3%), double relations and manipulations (23.2%).

The expressiveness of the psychologists' and clients' views on ethical categories and important aspects of counselling is presented in Fig. 1.

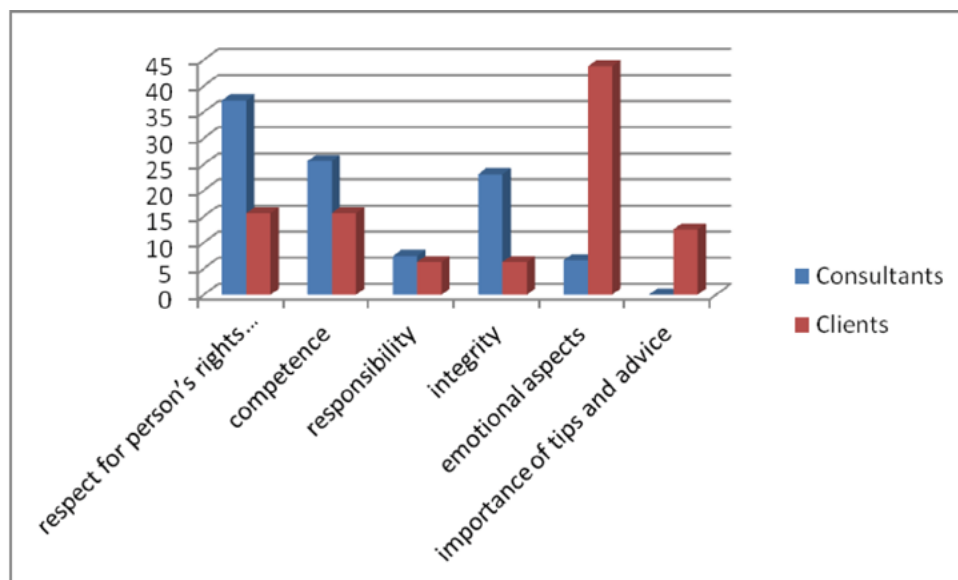


Figure 1. The expressiveness of the psychologists' and clients' views on ethical categories and important aspects of counselling based on the results of content analysis (in %).

There are differences in frequency and levels of explications for responses of the psychologists and that of the clients. The psychologists provided more detailed, complete answers, while clients were laconic. Based on the fact that a frequency of expressions belonging to one or another category reflects its subjective value for a respondent, we compared the frequency indexes of certain categories for the psychologists and the clients. Thus, statements about *respect for a person's rights and dignity* in the psychologists' responses appear 11 times on the average; about *competence* 8 times, *responsibility* 3 times; *integrity* 7 times, the importance of the emotional side of the consultation process appears 3 times on the average in one text with answers. As for the clients, statements related to *respect for a person's rights and dignity* appear 4 times; *competence* 4; *responsibility* 1; *integrity* 2; importance of *emotional aspects of the consultation process* appears 5 times on the average.

Student's t-test was used in order to compare the psychologists' and clients' ideas regarding the basic ethical principles and important aspects of counselling. Significant differences are given in Table 3.

Table 3 *Significant differences in the psychologists' and clients' views regarding the basic ethical principles and important aspects of counselling, Student's t-test*

<i>Ethical principles and important aspects of consultations</i>	<i>Psychologists</i>	<i>Clients</i>	<i>Significance of the difference in means</i>
Respect for person's rights and dignity	3.91	1.33	0.001
Competence	2.69	0.55	0.01
Responsibility	0.78	0.13	0.02
Integrity	2.43	0.22	0.003
Emotional aspects of interaction	0.69	1.55	0.028
Life experience of a consultant	2.86	4.17	0.001
Professional experience of a consultant	4.09	4.61	0.056
Providing recommendations	2.8	4	0.017
Discussion of a work plan and techniques	2.68	4.07	0.02

As can be seen from Fig. 1 and Tab. 3, the differences regarding the specified ethical categories in the psychologists' and clients' views are very significant, especially for the categories of *respect for a person's rights and dignity*, *integrity*, *competence*, as well as *emotional aspects of interaction*. These differences in the psychologists' and clients' views indicate at first glance a contradiction: the psychologists are more focused on a certain "framework" and rules of interaction, and the clients are seeking emotional support, acceptance, compassion, and also recommendations from their psychologist. But in reality these, it would seem, contradictions in the views reflect the various interconnected aspects of counselling procedure. At the same time, the ethical requirements, not being the subject itself of work with a client, provide security, trust, and cooperation, which are exactly the conditions that are the basis of effective psychological assistance.

The performed correlation analysis has revealed that the more psychologists work, the more important their life experience becomes for them in their professional work. In addition, professional experience grows in importance with the age of a psychologist.

Table 4 *Correlations between the psychologists' views, their age and work experience*

<i>The psychologists' views as to importance ...</i>	<i>Age</i>	<i>Work experience</i>
life experience	0.598** $p \leq 0.001$	0.483* $p \leq 0.03$
professional experience	0.467* $p \leq 0.03$	0.304 $p \geq 0.14$

No corresponding dependencies were found for clients; instead, an inverse correlation ( $r = -0.593$  \*;  $p \leq 0,033$ ) was recorded between the client's age and the importance of discussing the work plan and techniques. This means that the younger a client, the more important it is for them to participate in the discussion of the procedural side of counselling.

## Conclusions

The ethical principles of psychologists' professional activities are aimed at the establishment of universal humanitarian and social values; the main ethical principles are respect for a person, protection of human rights, sense of responsibility, honesty and sincerity with respect to a client, professional competence, commitment to the counselling purpose and confidence in its scientific basis.

The research performed shows that the ethical code of a psychologist is a sufficiently reliable basis for effective psychological practice, but, at the same time, it does not solve all practical contradictions, and sometimes stands in opposition with the organisation of such practice.

It has been empirically discovered that psychologists' views on ethical principles in their activities are fairly logical and consistent, they correspond with the provisions of the ethical code and, more importantly, with the content of the clients' responses. At the same time, there were differences in the psychologists' and clients' views regarding the importance of certain ethical principles (*respect for person's rights and dignity, competence, responsibility, integrity*) and emotional aspects of interaction and psychological advice, which, in our opinion, is mainly due to the different focus of attention of psychologists and clients during counselling: the psychologists are focused mainly on a certain "framework" and the rules of interaction, and the clients are seeking mostly emotional support. This fact reflects the various interconnected aspects of a counselling procedure. At the same time, ethical requirements, not being the subject of work with the client, provide security, trust, and cooperation, exactly the conditions that are the basis of effective psychological assistance.

Further research on the ethical issues of the psychologist's work is important with the view to improving the psychologists' professional training, as referring to the values and ethical conduct during university training and further professional development has a considerable potential for the formation and development of a proper professional approach.

## References

- American Psychological Association (1981). Ethical principles of psychologist. *American Psychologist*, 36, 633–638.
- Avoiding ethical missteps, <http://www.apa.org/monitor/2012/04/ce-corner.aspx> (accessed on 24.01.2018).
- Bocheliuk, V. I., & Zaritska V. V. (2007). *Psychology: entering into the specialty: study book*. Kyiv: Learning literature Center.
- Bondarenko, A. F. (2012). *Language. Culture. Psychotherapy: a collection of scientific articles*. Kyiv: Cathedra.
- Bulatevych, N. (2015). *Organization of psychological services' activity: tutorial*. Sumy. SumDPU by Makarenko.
- Corey, G. (2016). *Theory and practice of counseling and psychotherapy*. Brooks Cole, 10 edition, 490.
- Corey, G., Corey, M., & Callanan, P. (2007). *Issues and ethics in the helping professions* (7<sup>th</sup> ed.). Belmont, CA: Brooks/Cole.
- Ethical Principles of Psychologists and Code of Conduct*, <http://www.apa.org/ethics/code/code-1992.aspx> (accessed on 24.01.2018).
- Glukhov, V. P. (2008). *Basics of psycholinguistics*. Moscow: AST: Astrel.
- Ivanova, O. V., Korsun, S. I., & Moskalyuk, L. M. (2013). *Psychology: enter into specialty: study book*. Kyiv: Learning Literature Center.
- Karandashev, V. N. (2000). *Psychology: Introduction to the profession*. Moscow: Meaning.
- Krylov, A. A., & Yuryev, A. I. (2000). *Manual on general and experimental psychology*. Krylov A. A., Manichev S. A. (eds.), 2nd ed., St. Petersburg, Moscow, Kharkov, Minsk, 545–552.
- Meta-Code of Ethics*, <http://ethics.efpa.eu/metaand-model-code/meta-code/> (accessed on 24.01.2018).
- Myagotin, A. V. (2011). Professional ethics: modern values and meanings. *Values and meanings*, 2, 74–80.
- Tarasova, K., & Cheremukhin, A. (2017). Representation of psychologist-consultants on ethical values, professional sustainability and resilience in professional activities. *Universum: Psychology and Education*, 4(34), <http://7universum.com/ru/psy/archive/item/4615>.
- Universal Declaration of Ethical Principles for Psychologists*, <http://www.iupsys.net/about/governance/universal-declaration-of-ethical-principles-for-psychologists.html#pre-amb-le> (accessed on: 24.01.2018).
- Vorobyeva, L. I. (2009). Psychotherapy and ethics. *Consultative psychology and psychotherapy*, 1, 80–98.