

---

## Personality Hardiness as a Factor Determining the Interaction of a Person with the Environment (Psychological and Ecological Aspects)

---

Olga I. Efimova <sup>1\*</sup>, Aleksandr V. Grinenko <sup>2</sup>, Natalia V. Kalinina <sup>3</sup>,  
Dmitriy V. Miroshkin <sup>4</sup>, Yuliya V. Bazhdanova <sup>5</sup>, Aleksey A. Oshchepkov <sup>6</sup>,  
Svetlana A. Ivleva <sup>4</sup>

<sup>1</sup> Ulyanovsk State University, Ulyanovsk, RUSSIA

<sup>2</sup> MGIMO-University, Moscow, RUSSIA

<sup>3</sup> The Kosygin State University of Russia (Moscow State University of Design and Technology), Moscow, RUSSIA

<sup>4</sup> Sechenov First Moscow State Medical University, Moscow, RUSSIA

<sup>5</sup> Plekhanov Russian University of Economics, Moscow, RUSSIA

<sup>6</sup> Moscow Engineering-Physical Institute, Dimitrovgrad, RUSSIA

\* Corresponding author: efimovao@mail.ru

---

### Abstract

Modern civilization is characterized by rapid changes, making increased demands on the person in terms of his adaptation to the surrounding society. Therefore, the subject of the theoretical analysis presented in this article was such concepts as resilience and hardiness, which are close in meaning and characterize a person's potential in coping with difficult life situations. In the article the authors substantiate the importance of studying the psychological aspects of the interdisciplinary problem of the person's interaction with the environment. Interest in this problem is explained, among other things, by the aggravation of the global environmental problems of mankind, the need for psychological support to realize the concept of "sustainable development". The research areas in Western psychology are analyzed, united by a common scientific problem. They have some intersection areas in the subject and methodology: environmental psychology, eco-psychology, psychology of interaction with the environment and psychology of sustainable development. The authors consider the polysemy of the concept "ecology", which is widely used in current psychological discourse. It is asserted that the correlation of the context of foreign and Russian research will contribute to a more active involvement of psychologists in solving real problems of a person's interaction with the environment.

**Keywords:** eco-psychology, hardiness, resilience, psychology of sustainable development, adaptation resources

Efimova OI, Grinenko AV, Kalinina NV, Miroshkin DV, Bazhdanova YV, Oshchepkov AA, Ivleva SA (2019) Personality Hardiness as a Factor Determining the Interaction of a Person with the Environment (Psychological and Ecological Aspects). Ekoloji 28(107): 563-569.

---

### INTRODUCTION

Modern civilization is characterized by rapid changes in all spheres of life, starting with macro-levels and affecting elementary relations, which increases the role of individuality in the contemporary world. It is quite natural that such a rapid development of mankind increases the requirements to the person himself, imposes an additional burden on him, which affects the need to raise adaptive capabilities. Along with this, global transformations affect the personality of a person, changing his worldview and influencing the system of value orientations. In this regard, the problem of

developing the inner potential of a person, increasing his personal abilities is becoming increasingly important (Chernyavskaya et al. 2016, Omarova et al. 2018, Ulengov et al. 2018, Yachina et al. 2018). This area is also developed in the framework of the scientific research into the problem of improving human abilities (Dlimbetova et al. 2018, Potapova et al. 2018). Therefore, the solution of many objectives related to the problems of hardiness, allows one to make a certain contribution to the development of modern society through improving the human ecology.

However, the concept of hardiness is a new one that coincides in meaning with similar ones, such as, for example, resilience, and for this reason requires some clarification. The phenomenon of hardiness of the personality was developed by S. Muddy (Muddy and Khoshaba 1994). From his point of view, hardiness represents psychological tenacity and enhanced efficiency of a person, and is also an indicator of mental health. In Muddy's opinion, hardiness is a system of beliefs about oneself, about the world, about relations with the world, which impedes the emergence of internal stress in stressful situations, and also contributes to coping with stress (Muddy et al. 2002). In domestic psychology, the problem of hardiness is developed as part of the study of coping strategies with difficult life situations, of a post-traumatic stress disorder. For instance, Aleksandrova (2005) regards hardiness as an ability that underlies an individual's adaptation; hardiness can be considered as a process or quality, a trait, a personality trait, if we perceive adaptation as the result of adaptation activity (Aleksandrova 2005).

In contemporary Russian psychology studies are also conducted to investigate the personality adaptation potential, which determines a person's hardiness to extreme factors. Leontyev defines hardiness as a measure of an individual's ability to withstand a stressful situation, while keeping internal balance without compromising the performance of activity (Leontyev 2002, Leontyev and Rasskazova, 2003).

In addition, the focus on the phenomenon of resilience was preceded by a decline in attention to pathology and an increase in interest in the positive aspects of the human psyche. Masten (2007) refers such scholars as the child psychiatrist Manfred Bleuler, the child psychologist Lois Murphy, the developmental psychologist Ammy Werner and others to the pioneers of the study of resilience who paid particular attention to the human development trajectory characterized by marked adaptive capabilities. In Tusay and Dyer's (2004) opinion, at present, the most important is the vision of a dynamic, interactive perspective of understanding resilience. For domestic science, the conceptualization of a relatively new concept of human resilience has become important only in the last decade, which is defined as the systemic quality of an individual, determining activism and self-regulation of a person and thus serving as the basis for an individual's social adaptation. For example, Makhnach believes that resilience of an individual should be considered "as a systemic property that determines the manifestation of

activity and adaptability" and Laktionova considers resilience as "the individual ability of a person to social adaptation and self-regulation" (Makhnach and Laktionova 2013, Makhnach 2016).

An exhaustive definition of resilience is given by Rylskaya. It is "a synergistic unity of adaptation abilities, the abilities of self-regulation, the abilities of self-development and the meaningfulness of life, which in the structural aspect manifests itself through the features of its integration as a whole". In the same aspect, Nesterova gives the definition of the socio-psychological aspect of the resilience phenomenon "as a socio-psychological phenomenon, understood as the systemic quality of a person, characterizing the organic unity of the individual and socio-psychological abilities of a person to realize the resource potential" (Artamonova et al. 2016, Efimova et al. (2015a), Ganieva et al. 2015, Kuznetsova et al. 2017, Masalimova et al. 2014, Osin and Rasskazova 2013, Salakhova et al. 2016, Salakhova et al. 2017).

Thus, it can be concluded that hardiness is a concept that reflects to a large extent the ability to cope with a difficult life situation, and through this achieving the socio-psychological adaptation and resilience is a concept that relates to the overall potential of the socio-psychological adaptation. If hardiness is a trait that allows one to realize personal potential in overcoming a stressful situation, then resilience is a resource potential of the whole psyche, aimed at realizing a positive orientation in a person's life. In this regard, the concept of resilience is general, and the concept of hardiness is private in line with the potential of the social and psychological adaptation (Babieva et al. 2018, Kalenik et al. 2018, Kalinina et al. 2017, Lopatkova et al. 2018, Masalimova et al. 2019, Miroshkin et al. 2018, Mitin et al. 2017, Rassolov et al. 2016, Shmeleva et al. 2018, Shukshina et al. 2017, Shulga et al. 2018, Shulga et al. 2016, Valentina et al. 2018).

However, the analysis of the essential features of the phenomena of hardiness and resilience makes it possible to draw only general conclusions and consideration of their structures gives an opportunity to study in detail the characteristics of hardiness and resilience in a person's personality. In this regard, for a better understanding of the relationship between the concepts of hardiness and resilience, it is proposed to consider the existing, developed structures of the phenomena of hardiness and resilience (Bulgakov et al. 2018, Efimova et al. 2015b, Efimova et al. 2017, Kuznetsova et al. 2018, Maklakov 2001, Masalimova

and Chibakov 2016, Minakhmetova et al. 2017, Rak and Patterson 1996, Salakhova et al. 2017, Shapar 2006).

Muddy et al. (2002) also considered hardiness as a disposition that includes three components: commitment, control, challenge, on the basis of which the hardiness test was developed. In the hardiness test version adapted by Leontyev and Rasskazova (2003) the same structure was also adopted. In the framework of this methodology, these components are defined as follow. Commitment is defined as being involved in what is happening. A person with a developed component of commitment enjoys his own activity. In contrast, the absence of such persuasion gives rise to a feeling of being rejected, a sense of being "outside" life. Control is the persuasion that the struggle can influence the outcome of what is happening, even if this influence is not absolute and success is not guaranteed. In contrast to this is the feeling of one's own helplessness. Taking risks (challenge) is a person's persuasion that everything that happens to him contributes to his development through knowledge derived from experience, whether it is positive or negative. A person who views life as a way of gaining experience is ready to act in the absence of reliable guarantees of success, at his own risk and peril, considering the desire for simple comfort and safety impoverishing the life of an individual.

With regard to the phenomenon of resilience, Makhnach (2016), on the basis of an analysis of research papers related to the study of this phenomenon, found that there are six components of resilience: self-effectiveness, persistence, internal locus of control, coping and adaptation, family / social relationships and spirituality. The described components were included in the form of the corresponding scales in the author's test by Makhnach (2016) "Resilience of an adult". These components are defined as follows.

Self-effectiveness comprises individual expectations and perceptions, belief in an individual's ability to mobilize motivation, cognitive resources, and actions to influence an event. This component is similar to the component of control in the structure of hardiness. Persistence as a property of perseverance, life tenacity determines an individual's self-discipline and his desire to continue the struggle to restore balance after the impact of adverse events in life. The persistence component intersects with the component of taking a risk of hardiness. The internal locus of control is associated with the perception by the individual of the ability to influence the environment and the course of life in the future. This component is connected with all

the components of hardiness (commitment, control, challenge). Coping involves some cognitive and behavioral strategies used by an individual to control needs in adverse conditions, while adaptation is a process of adapting to changing or adverse circumstances.

Spirituality is understood as a set of beliefs and practical actions that are developed by people in a particular religious tradition. Religiousness is a method of indirect conversion of a person to God or some other higher power. Resilience also includes the ability of the individual to use the family, social and any external support system for better coping with stress.

Thus, from the conducted analysis of the structures of hardiness and resilience, it can be seen that these concepts coincide, and at the same time, resilience has a broader structure. So, if the components of commitment, control, challenge, self-effectiveness, persistence, locus of control, coping and adaptation belonging to both resilience and hardiness overlap in meaning, then the components of resilience such as family / social relationships and spirituality belong only to resilience. At the same time, it is worth noting that these components (family / social relationships and spirituality) of resilience are external in relation to a person's personality. All this also confirms that hardiness is a concept more related to internal, personal potential in coping with difficult life situations, and resilience reflects a broader socio-psychological potential in the ability to overcome adverse events in life, including personal and social factors. Proceeding from the foregoing, one can suggest considering hardiness as the realization of personal potential in the system of social relations, resilience as a manifestation of human social and psychological resources in interaction with society.

This approach is consistent with Druzhilova's (2012) opinion, who believes that the social component of health serves as the main factor in the formation of a healthy human ecology. This component is regarded as a state of well-being, which is connected with such personality traits as optimism, balance, adequate level of aspirations, and self-control, which correlate with the structural components of resilience and hardiness of the personality. In this regard, we can say that the ecology of a person is importantly realized through the socio-psychological health of the individual and the ecology of the individual. Thus, hardiness of the individual is an important criterion for the formation of a person's socio-psychological health.

In connection with the aforementioned, we deem it necessary to test the hypothesis about the relationship of the components of hardiness and propensity for suicidal behavior as a form of human interaction with the environment. This implies the following objectives:

1. to organize the empirical part of the study to investigate the components of hardiness of young people’s personality and analyze the results obtained.

2. to analyze the structure of hardiness of young people’s personality who are prone to suicidal behavior, and young people who are not prone to suicidal behavior.

3. to carry out a comparative analysis of the components of the viability of the personality of young people prone to suicidal behavior, and young people not prone to suicidal behavior.

**MATERIALS AND METHODS**

The empirical part of the study was carried out at the Dimitrovgrad Institute of Engineering and Technology, the subsidiary of the National Research Nuclear University “Moscow Institute of Engineering and Physics”. Eighty students aged 18–20 participated in the study, among them 40 young men and 40 girls. The main criterion of separating the subjects into the sample groups was the level of propensity for suicidal behavior, diagnosed according to the Scale of Propensity for Suicidal Behavior Methods in the technique of determining the propensity for deviant behavior offered by A.N. Oryol. In the samples thus formed, a comparative analysis of the components of hardiness of an individual was carried out.

The hardiness test offered by S. Muddy was used in the study, which was adapted by Leontyev and Rasskazova, directed to identifying the main components of personality hardiness, as well as the Propensity Scale for Suicidal Behavior in the Technique of identifying the propensity for deviant behavior (by A.N. Oryol), which is a standardized test questionnaire intended for measuring various forms of deviant behavior in the youth (Leontyev and Rasskazova, 2003).

**RESULTS**

In order to analyze the components of hardiness of young people who participated in the empirical study, we compared the group average values of the components of hardiness and general level of hardiness in young people who are not prone to suicidal behavior (YPNPSB) and young people who are prone to suicidal behavior (YPPSB), using Student’s t-test. Special

**Table 1.** Comparison of mean group values of hardiness components in female students not prone to suicidal behavior and female students prone to suicidal behavior

Components of hardiness	YPNPSB	YPPSB	t <sub>emp.</sub>
Commitment	38.75	38.00	0.1399
Control	34.50	29.25	<b>3.0138**</b>
Challenge	21.75	17.75	<b>3.4179**</b>
General level of hardiness	95.00	85.00	0.7723

\*\* - significant differences at  $\rho \leq 0.01$

**Table 2.** Comparison of mean group values of hardiness components in male students not prone to suicidal behavior and male students prone to suicidal behavior

Components of hardiness	YPNPSB	YPPSB	t <sub>emp.</sub>
Commitment	40.00	33.50	<b>3.3245*</b>
Control	34.75	31.50	0.6829
Challenge	18.25	19.50	0.4211
General level of hardiness	93.00	84.50	<b>2.7554*</b>

\* - significant differences at  $\rho \leq 0.05$

\*\* - significant differences at  $\rho \leq 0.01$

attention was paid to significant differences in the components of hardiness, which could indicate the relationship between the level of hardiness and the inclination to suicidal behavior. For the purpose of convenience, the material will be used in the following abbreviations: YPNPSB - young people not prone to suicidal behavior, YPPSB - young people prone to suicidal behavior.

As a result of a comparative analysis, significant statistical differences in the levels of hardiness and propensity for suicidal behavior were found in groups of young people. In the group of female students, significant differences were found in the components of the resilience of “control” (t<sub>emp</sub> = 3.0138 at  $\rho \leq 0.01$ ) and “challenge” (t<sub>emp</sub> = 3.4179 at  $\rho \leq 0.01$ ), the significance of which is higher in the group of girls who are not prone to suicidal behavior (**Table 1**).

Further, as a result of a comparative analysis, significant statistical differences in the levels of hardiness and propensity for suicidal behavior were also found in the groups of young men. Significant differences were found in the components of hardiness “commitment” (t<sub>emp</sub> = 3.3245 at  $\rho \leq 0.01$ ) and the “general level of hardiness” (t<sub>emp</sub> = 2.7555 at  $\rho \leq 0.05$ ), the significance of which is higher in the group of young men, not prone to suicidal behavior (**Table 2**).

## DISCUSSION OF RESULTS

The high index of the hardiness component of control explains the fact that girls who are not prone to suicidal behavior have a strong persuasion in the personality structure that they need to fight for their achievements, which allows them to choose their own way of life. Unlike girls who are prone to suicidal behavior, they have a high sense of helplessness in their own lives with their high inclination to suicidal behavior. As for the component of challenge, its high level in girls who are not prone to suicidal behavior is associated with the persuasion that everything that happens to them is associated with gaining experience, negative or positive, and personal development with it. In girls, prone to suicidal behavior, on the contrary, the risk is associated with negative experiences, which leads to fear of failure associated with low self-esteem, which corresponds to a high propensity level for suicidal attempts.

The high level of the commitment component in boys, similarly to girls with a high level of challenge, is explained by their enthusiasm for their own activity, which bring a person with the necessary personal experience, filling his life with meaning. The low rate of commitment in young men, associated with a high level of propensity for suicidal behavior, is due to a loss of meaning in life, a feeling of rejection. A high index of the general level of hardiness in young men explains the lowered inclination to suicidal behavior by an obstacle to the occurrence of internal stress in stressful situations due to persistent coping. In young men with a high

inclination level to suicidal behavior, on the contrary, the ability to cope is lowered, which leads to stress.

## CONCLUSIONS

Thus, in view of the aforesaid, the following conclusions can be drawn.

1. In the range of factors reducing risk and preventing suicidal behavior, a person's hardiness can act as a strong internal resource for overcoming stressful situations, and through this, preventing the manifestation of suicidal attempts. At the same time, hardiness is a system of components, the combination of which can form features of personal potential in preventing suicidal behavior.

2. The conducted empirical research in the sample groups of girls and young men confirmed the assumptions about the relationship between the level of hardiness and the propensity level for suicidal behavior. At the same time, hardiness in the sample groups of girls and boys has its own characteristics. Thus, the focus on personal development through the acquisition of life experience is associated in young men with greater involvement in activities, and among girls, with taking risks in their own actions. However, in general, hardiness of an individual is a persistent belief of a person that helps to endure stressful situations without increasing internal stress, which is a preventive factor in relation to suicidal behavior due to positive self-regulation. In this regard, the individual's hardiness is an important factor in the harmonization of human ecology.

## REFERENCES

- Aleksandrova LA (2005) To understanding the concept of "resilience" in the context of the problems of psychology abilities. *Psychology of abilities: current state and prospects of research*. Moscow: IP RAS.
- Artamonova EG, Efimova OI, Khydyrova AV (2016) Psychologist in the educational system: his role in the prevention of addiction and deviance. *International Journal of Environmental & Science Education*, 11(17): 9891-9901.
- Babieva NS, Sidyacheva NV, Mudrak SA, Kalinin IV, Zolotkova EV, Buyanova VV, Mikhailova IV (2018) Specific features of self-perception and anxiety of a woman with pathology of pregnancy. *Electronic Journal of General Medicine*, 15(4): 33-46.
- Bulgakov AV, Babieva NS, Levanova EA, Gridyaeva LN, Erofeeva MA, Sokolovskaya IE, Davidyan LY (2018) Specific features of psycho-emotional states of working women during pregnancy. *Electronic Journal of General Medicine*, 15(6): 86-94.
- Chernyavskaya YS, Kiselev SV, Rassolov IM, Kurushin VV, Chernikova LI, Faizova GR (2016) Assessment of the main indicators' relationship of projects of information and communication services' development. *International Journal of Environmental and Science Education*, 11(15): 7348-7357.
- Dlimbetova GK, Bulatbayeva KN, Abenova SU, Fahrutdinova GZh, Khuziakhmetov AN (2018) Management of Ecologization of Professional Education. *Ekoloji*, 106: 1217-1225.
- Druzhilov SA (2012) Mental health and human ecology. *Successes of modern science*, 12: 12-15.

- Efimova OI, Oschepkov AA, Salakhova VB (2015a) Personality and deviations: values and meanings. Ulyanovsk: USU.
- Efimova OI, Salakhova VB, Mikhaylova IV, Gnedova SB, Chertushkina TA, Agadzhanova ER (2015b) Theoretical review of scientific approaches to understanding crisis psychology. *Mediterranean Journal of Social Sciences*, 2: 3-11.
- Efimova OI, Oshchepkov AA, Chirkovskaya EG, Klepach YuV, Gridyaeva LN (2017) The Experience of Studying Specific Features of Social Attitudes and Value Orientations among Normative and Deviant Teenagers. *Eurasian Journal of Analytical Chemistry*, 12(7b): 1549-1553.
- Ganieva IN, Saifutdinova GB, Yunusova AB, Sadovaya VV, Shchepkina NK, Shcheka NYu, Gutman EV, Salakhova VB (2015) Structure and content of higher professional school lecturer education competence. *Review of European Studies*, 7(4): 32-38.
- Kalenik EN, Salakhova VB, Mikhaylovsky MN, Zhelezniakova ME, Bulgakov AV, Oshchepkov AA (2018) Psychophysiologic features and personal-adaptive potential of students with limited abilities. *Electron J Gen Med*; 15(6): 98-104.
- Kalinina NV, Salakhova VB, Artamonova EG, Efimova OI, Kalinin IV (2017) Psychological prevention mechanisms of minors' deviant behavior. *Eurasian Journal of Analytical Chemistry*, 12(5b): 663-672.
- Kuznetsova MA, Klochkova SV, Lavrinenko SV, Nikityuk DB (2018) Nutrition in sports: present situation and prospects. *Theory and Practice of Physical Culture*, 2: 15-27.
- Kuznetsova MA, Miroshkin DV, Chilingaridi SN (2017) Methodical approaches to teaching human anatomy in modern conditions. *Morphology*, 151(3): 79-80
- Leontyev DA (2003) *Psychology of meaning*. Moscow: Meaning.
- Leontyev DA, Rasskazova EI (2003) *Resilience Test*. Moscow: Meaning.
- Lopatkova IV, Serykh AB, Miroshkin DV, Shcherbakova OI, Kochetkov IG, Deberdeeva NA, Diatlova EV (2018) The interrelation of post-trauma stress disorders with reactive and personal anxiety. *Electron J Gen Med*, 15(6): em85.
- Makhnach AV (2016) *The viability of a person and family: a socio-psychological paradigm*. Moscow: IP RAS.
- Makhnach AV, Laktionova AI (2013) Personal and behavioral characteristics of adolescents as a factor in their viability and social adaptation. *Psychological Journal*, 34(5): 69 - 84.
- Maklakov AG (2001) Personal adaptation potential: its mobilization and forecasting in extreme conditions. *Psychological Journal*, 22(1): 16-24.
- Masalimova AR, Mikhaylovsky MN, Grinenko AV, Smirnova ME, Andryushchenko LB, Kochkina MA, Kochetkov IG (2019) The interrelation between cognitive styles and copying strategies among student youth. *Eurasia Journal of Mathematics, Science and Technology Education*, 15(4): Em.1695.
- Masalimova AR, Schepkina NK, Leifa AV, Shaidullina AR, Burdukovskaya EA (2014) Mentoring perfection in modern enterprises conditions: practical recommendations. *American Journal of Applied Sciences*, 11(7): 1152-1156.
- Masalimova AR, Chibakov AS (2016) Experimental analytical model of conditions and quality control of vocational training of workers and specialists. *Mathematics Education*, 11(6): 1796-1808.
- Masten AS (2007) Resilience in developing systems: Progress and promise as the fourth wave rises. *Development and Psychopathology*, 19: 921-930.
- Minakhmetova AZ, Skutelnik OA, Fedorchuk YM, Shulga TI, Pavlushin AA, Shagiev BV (2017) Motivational and valuable orientation of teachers as a condition to form students tolerant behavior. *Man in India*, 97(3): 323-332.
- Miroshkin DV, Shulga TI, Melamud MR, Maslova VM, Lazareva OD, Vrublevskiy AS, Kochetkov IG (2018) Self-Perception and Cognitive Features of Students with Different Sociometric Status. *Eurasian Journal of Analytical Chemistry*, 13(1), 86-97.
- Mitin SN, Shukshina LV, Bazhdanova YV, Koretskaya IA, Vasyakin BS (2017) Value and meaning attitudes as a factor of forming tolerant ethnic consciousness in the multicultural milieu of a higher education institution. *Eurasian Journal of Analytical Chemistry*, 12(7b): 1193-1200.
- Muddy S, Khoshaba D, Persico M, Lu J, Harvey R, Bleecker F (2002) The Personality Construct of Hardiness: Relationships With Comprehensive Tests of Personality and Psychopathology. *Journal of Research in Personality*, 36: 72-85.

- Muddy S, Khoshaba DM (1994) Hardiness and Mental Health. *Journal of Personality Assessment*, 63(2): 265 – 274.
- Omarova LB, Kalimullin AM, Grudtsina LY, Korzhuev AV, Zhukova MY. (2018) Philosophical anthropology in postmodernism. *XLinguae*, 11(3): 76-85.
- Osin EN, Rasskazova EI (2013) Short version of the test of resilience: psychometric characteristics and application in an organizational context. *Bulletin of Moscow State University*, 2: 147 - 165.
- Potapova SV, Danilova IY, Prasolov VI, Makarova EV, Kryukova NI. (2018) Mythological foundations of ontology. *XLinguae*, 11(2): 672-685.
- Rak CF, Patterson LE (1996) Promoting resilience in at-risk children. *Journal of Councelling and Development*, 70: 368-373.
- Rassolov IM, Sidyacheva NV, Zotova LE, Salitova FS, Konyushenko SM, Gzhemskaya NK (2016) Socio-pedagogical priorities of the educational process at the university: the didactic aspect of information technology. *International Journal of Environmental and Science Education*, 11(18): 10987-10997.
- Salakhova VB, Kalinina NV, Belinskaya DB, Aygumova ZI, Tkhugo MM (2017) Education as a factor of raising the adaptation potential in a delinquent personality. *Man in India*, 97(3): 1-13.
- Salakhova VB, Lodzhanidze AA, Vasyakin BS, Sidyacheva NV, Ludvig SD (2016) Dynamic meaning systems of consciousness of a criminal personality. *International Journal of Environmental and Science Education*, 11(16): 9374-9380.
- Salakhova VB, Tkhugo MM, Shalamova LF, Polevaya MV, Pozharskaya EL (2017) Intergration resources of the personality in the context of human existence modes. *Man in India*, 97(9): 121-130.
- Shapar VB (2006) Practical psychology. Psychodiagnostics of groups and groups. Rostov on Don: Phoenix.
- Shmeleva NB, Aygumova ZI, Carroll VV, Babieva NS, Gasanova PG (2017) Creativity in the teenager's personality structure. *Man in India*, 97(9): 143-150.
- Shukshina LV, Bazhdanova YV, Koretskaya IA, Vasyakin BS, Lipatova NV (2017) Development of multicultural value orientations in future specialists in the context of a higher education institution. *Eurasian Journal of Analytical Chemistry*, 12(5b): 875-885.
- Shulga TI, Efimova OA, Kolomiychenko LV, Minkova ES, Kartushina IG, Makarova EV (2018) Technology of complex accompany of student social and project competence formation process in social sphere. *Espacios*, 39(17): 110-121.
- Shulga TI, Savchenko DD, Filinkova EB (2016) Psychological characteristics of adolescents with different experience of living in a family. *International Journal of Environmental and Science Education*, 11(17): 10493-10504.
- Tusay K, Dyer J (2004) Resilience: a historical review of the construct. *Holistic Nursing Practice*, 86(2): 320-333.
- Ulengov RA, Khuziakhmetov AN, Nasibullov RR, Yarullin IF (2018) Approaches to the Environmental Assessment of Landscapes in the Republic of Tatarstan. *Ekoloji*, 106: 1713-1717.
- Valentina B, Salakhova DB, Belinskaya MA, Erofeeva IV, Ulyanova LE, Zotova RS, Khammatova OV, Mizonova (2018) Modern methods of diagnosing addiction to psychoactive substances: neurophysiological aspects. *Electron J Gen Med*, 15(6): 94-106.
- Yachina NP, Khuziakhmetov AN, Gabdrakhmanova RG (2018) Formation and Development of the Regional System of Continuous Environmental Education of a Teacher. *Ekoloji*, 106: 1315-1322.