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Empirical Research of the Hardiness of the Personality in Critical Conditions of Life

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Abstract: Uncertainty and instability haunt us every day in today's new reality. It is a characteristic feature of postmodern society. The purpose of the research is a theoretical justification and empirical study of the hardiness of the personality in critical conditions of life. Psychodiagnostic complex of hardiness is indicated as a factor of personality adaptation. High average and high levels of hardiness are characteristics of an independently developed personality with a high ability to adapt. It has been established that average level of hardiness contributes to the optimal experience of situations of uncertainty and involves a person's choice of coping strategies to counteract the new difficulties in professional and personal life. It has been substantiated that respondents with a high rates of hardiness had a higher level of adaptation efficiency. It has been stated that "risk acceptance" as the component of hardiness of participants of the "Work and Travel" program is more pronounced than in the respondents of other samples ($t = -1.54$). It has been proved that empirical research of psychological parameters of personality hardiness in critical conditions of life allowed to draw significant conclusions. It is noted that the results of the study need to be operationalized in training, educational and developmental and psycho-correctional practices. It is emphasized that the obtained empirical results should be used in the training of applicants for psychological specialties.

Keywords: *postmodern society, instability, uncertainty, new reality, crisis, adaptation.*

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1. Introduction

Globalization, high pace of social development, intensification of social interactions, aggravation of contradictions and conflicts pave new directions in the field of studying of postmodern society. Hardiness is not only a component of these trends, but also a methodological basis for resolving the looming conflict. The appeal to the concept of “hardiness” in contemporary psychology is largely related to the high rate of change taking place in contemporary social systems; it is also associated with the transformation of communication, when a person is involved in many communication situations.

External and internal hardiness is the main characteristic feature of contemporary person and his environment. Contemporary conditions of life require great endurance and readiness for the constant variability of life in the new reality. The variability of life in the new reality is outlined by a number of dimensions of postmodernism. Among which there is a deviation from rationality, accuracy, predictability and logic. With such articulation, the outlined issues of the hardiness of personality in critical conditions of life demonstrate the need for person to acquire the skills to adapt to all aspects of postmodern society. Such a society is characterized by uncertainty, unpredictability and criticism (Tarescavage, 2020).

In a postmodern society, it is necessary to master the ability to make responsible decisions in a limited period and with insufficient or excessive amount of information. Living conditions also require people to be able to use their own internal resources successfully. The ability of constant personal transformation and development of one’s own identity is important. A person needs inner strength to solve various problems and difficult situations during the transformation period, when the uncertainty of life in society is growing. The uniqueness of person’s problems of adaptation to socioeconomic changes is that they affect not only the change of living conditions, but also the functioning of the “upward mobility”. Such “upward mobility” is able to help any personality in self-realization and rising to new levels of internal growth and social hierarchy.

In contemporary psychology, the resource approach is a common practice. It has its origins in humanistic psychology. A key place in this approach belongs to the study of the constructive beginning of personality. This approach to the problem allows overcoming difficult life situations. That is why the problem of hardiness as a resource for person’s adaptation in society and uncertain life situations is of great importance. The relevance of the researched issues is a demand of the present time.

2. Literature review

Problems of instability, in particular the country's crisis, low predictability of social processes have recently been exacerbated by the COVID-19 pandemic caused by the SARS-CoV-2 virus. This only exacerbated the mental effect on people (Khmiliar et al., 2020; Petkanopoulou et al., 2018; Sandu & Vlad, 2018; Tomaszek, & Muchacka-Cymerman, 2020). Fake news about COVID-19 pandemic is one of the factors which strengthening critical situation (Huidu, A. (2020)). In periods of relative social stability, social behavior is often determined by a combination of factors: personal values, material constraints, laws, social norms, and so on. It means that the change in one of these factors is often absorbed and compensated by the stability of other factors. However, this understanding of hardiness and predictability of social behavior cannot be extrapolated to what happens during a crisis. Hardiness decreases when the population faces serious shocks in their daily lives (Elcheroth & Drury, 2020).

A person who getting into a difficult condition of life is often characterized by a low level of self-acceptance. In particular, the study of A. Behn (2019) confirms the fact that a person with severe PTSD (victim of violence) is more self-critical due to lower self-acceptance (Behn, 2019). It has been established and substantiated that self-acceptance promotes mental health (Fung-ying & Ma, 2019).

A satisfactory level of hardiness protects personality from disintegration and mental disorders, creates a basis for inner harmony, full mental health and high ability to live. Disintegration is the loss of adequate functioning of the higher level of the psyche, which is responsible for the regulation of behavior and activity; it indicates the collapse of the hierarchy of life meanings, goals, values, motives (Bekh et al., 2020). The psychological stability of a personality determines hardiness, physical and mental health.

The concept of “stable” translated from other languages as “solid, strong”. There are two synonyms for this word: “stability, balance” (Berulova, 2008). The term “stability” translated as: 1) balance; 2) hardiness; and “mental stability” as mental stability.

A. Portnoy et al. (2018) emphasized gender differences in hardiness indicators (2018). Men's rates were higher than women's. The authors note that the type of received injury is central to understanding hardiness by war veterans. Researchers suggest taking into account the socio-ecological context that can promote or inhibit the psychological hardiness of the personality (Portnoy et al., 2018).

Adaptation is considered as one of the aspects of hardiness. So the

results of K. Sunguh's et al. (2020) research on the level of adaptation of low-status emigrants are of scientific interest. Scientists claim that the level of adaptation is influenced by identity, social status, self-esteem of effectiveness, social self-esteem, education level and age of emigrants (Sunguh et al., 2020).

L. Kulikov (2004) interprets balance as the possibility and ability to compare stress with the resources of psyche and body. The level of stress is not always determined by stressors and circumstances. Balance, as a component of mental stability, is the ability to minimize the negative impact of the subjective component in the emergence of stress, the ability to keep stress within acceptable limits. Balance is also the ability to avoid extremes, which is the strength of endurance in the form of reaction to events that occur. The results of B. Kalir's (2019) study confirm that in meetings with illegal migrants, deportation officers tried to create a zone of emotional comfort. They did it to avoid emotional stress and excessive compassion for clients. Thanks to this and their moral attitudes, ideas of justice and care, employees could perform their activities effectively, remain emotionally stable and not violate the migration policy of their country (Kalir, 2019).

Resistance is the ability to resist to something that restricts freedom of behavior, freedom of choice, both in individual decisions and in the choice of lifestyle in general. The most important aspect of resistance is personal self-sufficiency in the understanding of freedom from dependence (Zabrodin, 1994).

Mental stability is interpreted as a quality of personality, some aspects of which are balance, resistance. It allows a person to withstand the difficulties of life, adverse pressures, maintaining health and ability to work in various trials (Anczyferova, 1994). Different approaches of world psychology denoted "phenomenology", which reflects different aspects of personal potential, by such concepts as "will", "Ego power", "inner support", "locus of control", "action orientation", "will to reason" etc. From the point of view of D. Leontiev (2014), most fully, this concept in psychology corresponds to the concept of "hardiness", introduced by S. Maddi (2006).

A comprehensive study of the hardiness led S. Maddi (2006) to a conclusion that it is more powerful than optimism and religiousness in coping with stresses. According to the author, this provides the courage and motivation for hard strategic work to change stressful situations from potential disasters to growth opportunities. But there are still many unresolved issues. Through them orientations and actions proposed as part

of positive psychology can be compared in their contributions to performance and health (Maddi, 2006).

Numerous researchers consider “hardiness” in the context of problems of coping with stress, adaptation – maladaptation in society, physical, mental and social health. The development of personal attitudes, united by the concept of “hardiness”, could become the basis for a more positive worldview, improving a quality of life, turning obstacles and stresses into a source of growth and development. It is important that this is the factor, the internal resource, which is subject to a person, this is what he can change and rethink. It helps to maintain physical, mental and social health, an attitude that gives value and meaning to life in all circumstances.

A thorough study of the phenomenon of hardiness was made by A. Sandvik (2013) and P. Bartone (2013). Authors indicate that psychological hardiness (including commitment, control, and challenge) characterizes person who remains healthy under psychosocial stress. The research showed that being high in hardiness with a balanced profile is linked to more moderate and healthy responses to stress (Sandvik et al., 2013).

Findings revealed a significant positive relationship between hardiness and perceived stress-related growth. Two coping strategies were found to mediate this relationship: emotional support and positive reframing. However, researchers note that future investigation should employ methodologies and appropriate methods that enable exploring adaptive strategies used by athletes high in hardiness and their counterparts (Diss et al., 2016).

It was concluded that there is strong relationship between hardiness and physical performance. Authors argue that hardiness significantly predicted behavioral persistence during the military basic training that is physically and psychologically demanding and can experience as a threat to well-being. They hypothesize for future research an indirect effect of hardiness through other major hardiness predictors such as health and social support (Bue et al., 2018).

A detailed analysis of the influence of hardiness on depression among returning war veterans was made by P. Bartone (2020) and G. Homish (2020). They concluded that training for hardiness and active coping strategies reduce the risk for depression in combat exposed soldiers. However, it is worth noting that the research was conducted only among men, so authors see the need to study women as well.

An accurate description of the main types of manifestation of hardiness and its components under different social conditions of activity and development in contemporary adolescents has been given by V. Malkin

and his colleagues. They regarded hardiness as one of the adaptation resources of personality to stressful situations, responsible for the mental health preservation. Authors emphasized the need to study this phenomenon in different social groups (Malkin et al., 2019).

Satisfaction of psychological needs is impossible or disturbed in critical living conditions. This leads to difficulties in emotional response. B. Faustino and A. Vasco (2020) substantiate the relationship between difficulties in emotional response and maladaptive patterns of regulation of psychological needs. The authors note that the gradual restructuring of such maladaptive schemes can be used to help regulate both psychological needs and emotional responses (Faustino & Vasco, 2020).

The authors understand the hardiness of the personality as viable beliefs that affect the assessment of the situation and provide a readiness to act actively. On the one hand, it is a kind of confidence in the ability to influence a situation and it is perceived as less traumatic. On the other hand, hardiness contributes to the active overcoming difficulties. It stimulates the care of one's own health and well-being, due to which the tension and stress felt by a person do not develop into chronic and do not lead to psychosomatic diseases.

Hypothesis

1. We assume that the empirical research of psychological parameters of personality hardiness in critical conditions of life will allow to draw significant conclusions. These conclusions will have practical value and can be operationalized in training, educational and developmental and psycho-correctional practices.

2. We assume that respondents with high rates of hardiness will have a higher level of effectiveness of socio-psychological adaptation.

3. We assume that the difference between the samples in the expression of the components of hardiness will be significant.

4. Empirical results will be useful for the preparation of applicants for psychological specialties.

Purpose

The theoretical substantiation and empirical research of the hardiness of the personality in critical conditions of life.

3. Research of methodology

The methodological basis of the empirical research of the hardiness of the personality in critical conditions of life is an algorithm that is a

sequence of tested empirical studies using relevant psychodiagnostic methods. The methodology proposed by the authors is tested in the process of studying of adaptation processes (Blynova et al., 2020a; Kononenko et al., 2020; Kuzikova et al., 2020a; 2020b; Vasylenko et al., 2020), psychological parameters of emotional intelligence (Halian et al., 2020a; 2020b; Shevchenko et al., 2020), innovative pedagogical activities (Halian, 2019; Tsiuniak et al., 2020), different activities and motivational states of respondents of different ages (Blynova et al., 2020b; Popovych et al., 2020; Rahimiati et al., 2020). The proposed research is fully or partially related to the empirical study of the hardiness of the personality in critical conditions of life.

Participants

The sample of 240 people was randomly constructed. Three groups of respondents are united in it: students-psychologists, participants of the program “Work and Travel”, testers. 80 respondents are students majoring in psychology aged 19 to 22 (Ivano-Frankivsk, Ukraine). Another 80 respondents were students of the Institute of Social Sciences, majoring in international relations, hotel and restaurant business (Sumy, Ukraine). Their age range is 19-22 years. The participants had work experience in the United States and Turkey for 4 calendar months under the program “Work and Travel”, speaking practice for a month in Jordan. 80 respondents are representatives of LLC “VEB100 Network Technology Center” (Sumy, Ukraine), specialization “tester”. Age range of respondents is 21-27 years. This sample is represented by individuals with different levels of basic and university education, but all of them studied at the online course “Fundamentals of Software Testing” from QA Test Lab and passed six certifications, which included training while working. The nature of certifications is a test of theoretical and technical skills acquired during project testing and acquaintance with the proposed certification materials. The working process also involves communication with foreign customers (USA, Europe). Arithmetic mean age of the sample was 21.9 years ($SD = 3.81$). The number of 80 respondents in each group is statistically relevant, which provides a high degree of reliability of the study with low error.

The research is conducted according to ethical standards of committee on the rights of experiments of Helsinki declaration (2013). Respondents voluntarily agreed to participate in the empirical research. They were informed about the conditions of participation and the confidentiality of data collection. Voluntariness, awareness and confidentiality ensured the reliability of the obtained empirical data.

Instruments

The empirical study was conducted during the October-November of 2019-2020 academic year. Each participant filled in the forms of three methods at the same time.

1. In order to establish psychological parameters that allow respondent to overcome stressful situations, a “Personal change-readiness survey” (“PCRS”) (S. Rollnick, N. Heather, R. Gold and W. Hall) was used (Rollnick et al., 1992). The test has seven scales and contains 35 statements. We used four scales: “Overall indicator of self-development”, “Passion”, “Optimism”, “Adaptability”. The test uses a six-point semantic, differential, unipolar scale of measurement with the distribution of answers from “Absolutely disagree” - (1) to “Absolutely agree” - (6). The reliability parameters set using Cronbach- α were: $\alpha_{PCRS} = .809$.

2. In order to determine the psychological parameters of socio-psychological adaptation, “Socio-psychological adaptation” test (“SPA”) (C. Rogers) (Rogers, 1951) was used. The test has eight scales and contains 101 statements. We used five scales: “Adaptation”, “Disadaptation”, “Self-acceptance”, “Emotional Comfort”, “Internal Control”. The test uses a seven-point, semantic, differentiated, unipolar scale of measurement with the distribution of answers from “It does not concern me at all” – (0) to “It’s just me” – (6). The reliability parameters set using Cronbach- α were: $\alpha_{SPA} = .834$.

3. In order to determine the psychological parameters of hardiness, a questionnaire “Hardiness Survey” (“HS”) (S. Maddi, 2004; adapted by D. Leont’ev and E. Rasskazova, 2006) was used. The following scales were used: “Involvement”, “Control”, “Risk acceptance”, “Challenge”. The “HS” questionnaire consists of four scales and 45 statement items. The questionnaire used a semantic, differential, unipolar scale of measurement with the distribution of answers from “I do not consider the situation unpleasant” – (0) to “The situation is unpleasant and causes fear” – (4).

The reliability parameters set using Cronbach- α were: $\alpha_{HS} = .821$. The reliability indices of Cronbach- α were within the range good (.8) and high levels (.9). Applied psychodiagnostic techniques and identified thirteen scales relevantly reflected the subject of the research and provided the necessary requirements to obtain reliable data by factor analysis.

Statistical Analysis

Computer programs “SPSS” v. 17.0 and “MS Office Excel 2010” were used for statistical processing of the received data. Arithmetic mean value of parameters (M) and mean-square deviation (SD) have been

determined. Spearman's correlation coefficients (r_s) have been used to calculate the correlation coefficients. One-way analysis of variance (*ANOVA*) has been used. The parametric criterion of t-Student was used. Differences between values of parameters at level $p \leq .05$ and $p \leq .01$ were considered statistically significant.

4. Results

We used one-way analysis of variance in order to establish the effect and test hypotheses. Due to the analysis of mean values (M) corresponding to different gradations of the factor and their differences, one-factor analysis of variance allowed us to test the hypothesis that the factor under research affects the dependent variable and the way it occurs. That is, the aim of the research is to establish the dependences in the experimental groups by analyzing the significance of the differences in the average values obtained during the processing of the performed methods. The most significant results of the analysis are below, where the factor (independent variable) is the overall level of hardiness.

The results indicate that the overall level of hardiness affects the following scales: overall self-development ($F = 2.053$; $p = .033$), passion ($F = 2.332$; $p = .015$), optimism ($F = 3.643$; $p = .000$), adaptability ($F = 4.477$; $p = .000$). Other scales were excluded from the one-way analysis of variance because the results were $p > .05$. The obtained results allowed to establish that hardiness is a complex construct that determines the processes of personal self-development, as well as affects the level of passion and optimism of the personality (see *Tabl. 1*).

Table 1. The results of one-way analysis of variance

Scale	Variant	Sum of squares	DF	Mean square	F	p
Overall indicator of self-development	Between groups	435.667	15	29.044	2.053	.033
	Inside the group	622.333	44	14.144		
	Total	1058.000	59			
Passion	Between groups	463.661	15	30.911	2.332	.015
	Inside the group	583.322	44	13.257		

	Total	1046.983	59			
	Between groups	949.711	15	63.314	3.643	.000
Optimism	Inside the group	764.689	44	17.379		
	Total	1714.400	59			
	Between groups	3898.311	15	259.887	4.477	.000
Adaptability	Inside the group	2554.089	44	58.047		
	Total	6452.400	59			

The impact of hardiness on the component of personality adaptation is direct, and is realized indirectly through other variables, namely passion and optimism. High average and high level of hardiness is characteristic of an independent personality with developed life orientations. Factors of development of such personality are the general (not only situational) active orientation on activity, belief in oneself, in own future, functioning of the higher system of regulation of activity, strategic orientation and absence of impulsive behavior.

A person who strives for self-development, withstands stressful situations skillfully, maintains internal balance and does not lose the productivity of the activities.

A positive attitude to one's own changes, internal resources and the ability to adequately assess the ability to manage these changes and the difficulties that arise on their way, determine the potential of the personality to adapt and overcome these difficulties in everyday life, even if they have extreme nature.

An integral indicator of the severity of hardiness has a significant relationship with the severity of adaptation, and is close to significant with the components of self-acceptance and emotional comfort. Thus, the higher the rate of hardiness of the respondent, the more expressed indicators of adaptation, self-acceptance and emotional comfort are.

Table 2. Correlation between the components of hardiness and socio-psychological adaptation

Scale	Involvement	Control	Risk acceptance	Overall indicator	Adaptation	Disadaptation	Self-acceptance	Emotional Comfort	Internal Control
Involvement	1.00				.26		.18	.25	.18
Control		1.00			.24				
Risk acceptance			1.00		.33	-.26	.18		
Overall indicator				1.00	.34		.21	.19	

Depending on the level of expression of a component in the structure of hardiness various indicators as part of successful adaptation, will be dominated. Thus, the expression of “involvement” in the structure of hardiness will contribute to the development of emotional comfort, self-acceptance and internal control. For example, if a person is interested in social changes that are happening around, he will feel emotional comfort. The reason for this is a sufficient awareness of the processes taking place, as well as a high level of awareness. The high severity of adaptation and decrease the rate of maladaptation (which, logically, are polar in concept and meaning) will increase to “risk acceptance”.

The studied indicator of involvement is characterized by the confidence that everything that happens gives the maximum opportunity for the personality to receive valuable and interesting experience. A person with a highly developed indicator of involvement feels the maximum satisfaction from the activity in which he is engaged, because it allows to feel his significance and value. The obtained results were as follows: 80.0% of participants of the “Work and Travel” program showed medium level, 20.0% low one; 70.0% of students-psychologists had average level, 30.0% had low level; 40.0% of testers had high level, 60.0% had average one. The results obtained for all samples were average, but only the testers had a high

level of involvement. During individual interviews with respondents, the following pattern was established: about 95.0% of respondents made a conscious choice of work in the field of testing, which is significantly different from their higher education. That is why the involvement in the activities of this sample is slightly higher than in other samples.

The pairwise correlations in the statistical analysis showed that the indicator of “involvement” is statistically positively correlated with the indicator of “conditions of self-development” ($r_s=.647$) and “general level of self-development” ($r_s=.457$). The correlation is at the .01 level and is two-way (.000). Involvement in our research is characterized by self-confidence and self-efficacy, this indicator has an undeniable connection with the “confidence” component, which we have considered above.

Involvement is the key to achieving high goals and prevents stagnation, promotes the mobilization of energy and creative potential, which is aimed not only at activities but also at internal processes.

Control as a component of hardiness is a point of beliefs that maximum attention to situations allows to influence the outcome of what is happening, but such influence may not be effective and not absolute. With a highly developed component of control, a person feels that can choose own direction of activity. The control component is also similar to the category of J. Rotter's (1951) locus of control, which is a person's tendency to attribute responsibility for events of life and the results of their activities to external forces (externality, external locus of control) or their own abilities and efforts (internality, internal locus of control). The obtained results were as follows: 20.0% of students-psychologists had high level, 20.0% had an average level, 60.0% – low; 40.0% of participants of the “Work and Travel” program had high level, 50.0% had medium and 10.0% – low; 20.0% of testers had high level, 40.0% had medium one and 40.0% – low.

The analyzed pair correlations in the statistical analysis showed that the indicator “control” is statistically significantly positively correlated with the indicator “conditions of self-development” ($r_s=.460$) and “optimism” ($r_s=.467$) at the tendency level. The correlation is at the .01 level and is two-way (.000). The obtained data are the basis for a possible further research of the correlation between these indicators. Optimism can be a long and effective result of working on yourself. It is the confidence of the personality that, regardless of the difficulties that have to be solved, they lead to the realization of success. Thus, person controls everything that happens, including the conditions of self-development.

Acceptance of risk is a person’s belief that everything that happens to him, contributes to his development through knowledge that is in the experience both positive and negative.

This component allows the personality to remain open to the world and perceive events as a challenge and a test. The obtained results were as follows: 30.0% of students-psychologists had an average level, 70.0% had low; 50.0% of participants of the program “Work and Travel” had high level and 50.0% – medium; 40.0% of testers had medium level, 60.0% – low. The high level of risk acceptance is observed only in the participants of the “Work and Travel” program, which may also be due to their training in the agencies that organize this program. Participants consider possible risk situations to be prepared for various crises and their overcoming.

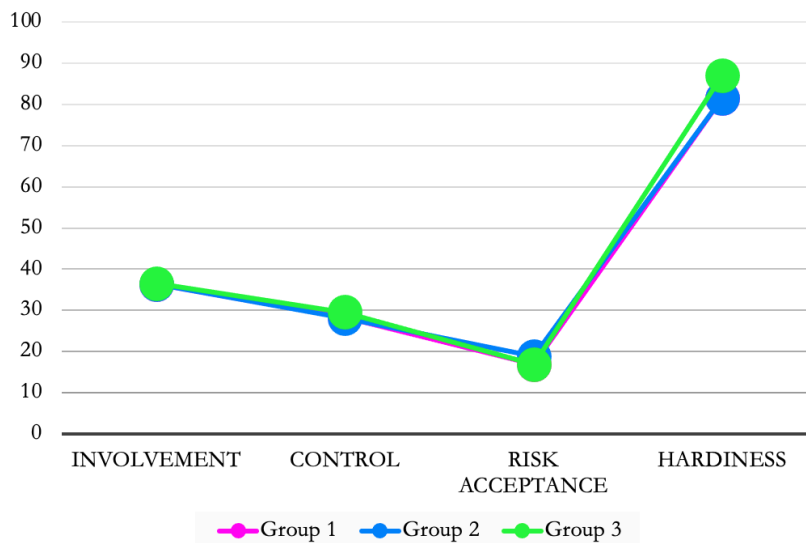
In order to determine the significance of differences in the severity of the components of hardiness between students-psychologists, testers and participants of the program “Work and Travel” parametric Student’s t-test was used. The results of the comparative analysis are given in Tabl. 3.

Table 3. Significance of the difference in the severity of the hardiness component between samples

Scale	M			t-value	p	Valid N
	Group 1	Group 2	Group 3			
Involvement	36.266	36.266	36.500	-.116	.908	90
Control	28.333	28.033	29.566	-.686	.495	90
Risk acceptance	16.933	18.933	16.933	-1.544	.128	90
Hardiness	81.566	81.566	87.100	-1.245	.218	90

Note: M – arithmetic mean; Group 1 – Student’s psychologists; Group 2 – Work and Travel; Group 3 – Testers; t-value – the value of the Student’s t-test; p – the value of the correlation coefficient; Valid N – valid number of respondents.

Differences between the studied groups on the key parameters of hardiness are clearly shown in the diagram (see Fig. 1).



Note: Group 1 – Student’s psychologists; Group 2 – Work and Travel; Group 3 – Testers.

Fig. 1. Diagram of differences between Group 1, Group 2, Group 3 on the key parameters of hardiness

We can conclude that, firstly, there is no significant difference between the samples in the severity of the components of hardiness and the integrated indicator of hardiness. Second, the participants of the “Work and Travel” program have more expressed component of hardiness – “risk acceptance” than the respondents of other samples ($t = -1.54$).

5. Discussion

Note that we have not find a relationship between hardiness indicators and adaptation parameters in an empirical research of personality hardiness in critical living conditions. In the context of our study, attention is paid to the theoretical and methodological starting points substantiated by the researcher L. Kulikov (2004). Psychological hardiness of the personality has three aspects: stability; balance, proportionality; resistance. Stability can be traced in the forcing of difficulties as the ability not to lose faith in themselves, a sense of self-confidence, faith in their abilities, as the ability to effective mental self-regulation. Stability is the ability of a personality to

maintain mental self-expression and adequate functioning, to exercise self-government, to develop, to adapt successfully. Decreased stability encourages the personality, being in a situation of risk, i. e. situations of trials, losses, social maladaptation and deprivation, overcomes it with negative consequences for mental and physical health, personal development, interpersonal relationships (Kulikov, 2004).

The tested theoretical and methodological principles, implemented by L. Kulikov (2004), were applied by us at the stage of substantiation of the concept of empirical research of personality hardiness in critical living conditions. In previous studies (Kuzikova et al., 2020b; Kuzikova, 2018), we have found a significant positive correlation between vitality and hardiness. It allowed us to approach the empirical research, which created an actual critical life situation and the need to solve it. The composition of the sample was created taking into account the critical conditions that were relevant for the respondents: psychologists, testers and students majoring in “international relations”. This logic of empirical research was not limited by the definition of the studied parameters, and considerable attention was paid to establishing the relationships of the studied parameters.

We state that the results of the research of the psychological parameters of hardiness of the personality in critical living conditions have practical value. It is appropriate to operationalize results in training, educational and developmental and psycho-correctional practices.

It has been found that respondents who have high hardiness rates have a higher level of effectiveness of socio-psychological adaptation. The assumption that the difference between the samples in the expression of the components of hardiness will be significant was refuted. Note that the empirical results should be introduced in the training of applicants for psychological specialties. The first, second and fourth hypotheses were confirmed, the third hypothesis was refuted. The purpose of the study has been achieved.

6. Research Limitation

Our empirical research has a number of limitations. At the stage of formulating hypotheses, we have identified two general hypotheses – too broad (1 and 4) and two hypotheses that have been empirically proven / refuted (2 and 3). The sample partially took into account the regional representation, which could affect the purity of the experiment. The problem under study is postmodern, and in the sources reviewed, we have attempted to present this connection properly. The discussion presented in the study is limited by the lack of similar empirical studies. The discussion

outlines the logic of empirical research and states the achievement / refutation of hypotheses and the purpose of the research.

7. Conclusions

1. Hardiness as a psychological phenomenon is based on three initial ideas, which were confirmed in the research. Early adulthood is more favorable to the influence of the outside world according to the life situation, so their indicators may generally be much lower due to lack of sufficient life experience. Usually at this age there is a professional development of the personality, as well as the formation of a new center of society – his own family. So situations of uncertainty keep pace with the person, most of the situations he faces will be new and crisis.

2. Respondents need to make appropriate decisions not only in the personal but also in the professional sphere, to be responsible for the tasks imposed on them by the profession itself.

3. Psychodiagnostic complex of hardiness is indicated as a factor of personality adaptation. High average and high levels of hardiness are characteristics of an independently developed personality with a high ability to adapt.

4. According to the results of the research among the presented sample it has been found that most subjects are characterized by an average level of hardiness. This level contributes to the optimal experience of situations of uncertainty and involves a person's choice of such coping strategies that allow counteracting new difficulties in professional and personal life.

5. Respondents with high hardiness rates have a higher level of adaptation efficiency. In particular, in the participants of the “Work and Travel” program, such a component of hardiness as “risk acceptance” is more expressed than in the respondents of other samples ($t = -1.54$).

6. The results of the research need to be operationalized in training, educational, developmental and psycho-correctional practices. The obtained empirical results should be used in the training of applicants for psychological specialties.

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References

- Ancyferova, L. I. (1994). Personality in difficult living conditions: rethinking, transformation of situations and psychological protection. *Psychological Journal*, 51(1), 3-18.
- Bartone, P. T., & Homish, G. G. (2020). Influence of hardiness, avoidance coping, and combat exposure on depression in returning war veterans: A moderated-mediation study. *Journal of Affective Disorders*, 15(265), 511-518. <https://doi.org/10.1016/j.jad.2020.01.127>
- Behn, A. (2019). Working with clients at the intersection of depression and personality dysfunction: Scientific and clinical findings regarding complex depression. *Journal of Community Psychology*, 75(5). Special Issue: Complex Depression, 819-823. <https://doi.org/10.1002/jclp.22758>
- Bekh, Y., Riabeka, O., Vashkevych, V., Zinkevych, V., & Chepurenko, Y. (2020). Historical Types of Rationality and Irrationality in the Structure of Post-Modernist Consciousness. *Postmodern Openings*, 11(3), 195-206. <https://doi.org/10.18662/po/11.3/207>
- Berulova, M. N. (2008). Problem of the development of the student's personality in high school. *Bulletin of the University of the Russian Academy of Education*, 2, 20-24.
- Blynova, O., Chervinska, I., Kazibekova, V., Bokshan, H., Yakovleva, S., Zaverukha, O., & Popovych I. (2020a). Social and Psychological Manifestations of Professional Identity Crisis of Labor Migrants. *Revista Inclusiones*, 7(3), 93-105. <http://www.revistainclusiones.org/index.php/inclu/article/view/1318>

- Blynova, O., Lappo, V., Kalenchuk, V., Agarkov, O., Shramko, I., Lymarenko, L., & Popovych, I. (2020c). Corporate Culture of a Higher Education Institution as a Factor in Forming Students' Professional Identity. *Revista Inclusiones*, 7(Especial), 481-496.
<http://www.revistainclusiones.org/index.php/inclu/article/view/1305>
- Bue, L. S., Kintaert, S., Taverniers, J., Mylle, J., Delahaij, R., & Euwema, M. (2018). Hardiness differentiates military trainees on behavioral persistence and physical performance. *International Journal of Sport and Exercise Psychology*, 16(4), 354-364. <https://doi.org/10.1080/1612197X.2016.1232743>
- Diss, C., Salim, J., & Wadey, R. (2016). Examining the relationship between hardiness and perceived stress-related growth in a sport injury context. *Psychology of Sport and Exercise*, 19, 10-17.
<https://doi.org/10.1016/j.psychsport.2014.12.004>
- Elcheroth, G., & Drury, J. (2020). Collective resilience in times of crisis: Lessons from the literature for socially effective responses to the pandemic. *British Journal of Social Psychology*, 59(3), 703-713
<https://doi.org/10.1111/bjso.12403>
- Faustino, B., & Vasco, A. B. (2020). Relationships between emotional processing difficulties and early maladaptive schemas on the regulation of psychological needs. *Clinical Psychology & Psychotherapy*, 27(6), 804-813.
<https://doi.org/10.1002/cpp.2464>
- Fung-ying, S. A. & Ma, Y. (2019). Dispositional mindfulness and mental health in Hong Kong college students: The mediating roles of decentering and self-acceptance. *Australian Journal of Psychology*, 72(2), 156-164.
<https://doi.org/10.1111/ajpy.12269>
- Halian, A., Halian, I., Burlakova, I., Shevchenko, R., Lappo, V., Zhigarenko, I., & Popovych, I. (2020a). Emotional Intelligence in the Structure of Adaptation Process of Future Healthcare Professionals". *Revista Inclusiones*, 7(3), 447-460.
<http://www.revistainclusiones.org/index.php/inclu/article/view/1347>
- Halian, I., Machynska, N., Lozynska, S., Nos, L., Derkach, Yu., Prots, M., & Popovych, I. (2020b). Tolerance of uncertainty as a component of the process of life-creation of future educators. *Revista Inclusiones*, 7 (Especial), 512-528.
<http://www.revistainclusiones.org/index.php/inclu/article/view/1307>
- Halian, I. M. (2019). Personal determinants of responsibility of future educators. Insight: the psychological dimensions of society, 1, 15-21.
<https://doi.org/10.32999/2663-970X/2019-1-2>
- Huidu, A. (2020). The Social Responsibility of Researchers in Combating Fake News and Conspiracy Theories During a Pandemic. *Postmodern Openings*, 11(1Sup2), 39-48. <https://doi.org/10.18662/po/11.1sup2/138>

- Kalir, B. (2019). Repressive Compassion: Deportation Caseworkers Furnishing an Emotional Comfort Zone in Encounters with Illegalized Migrants. *Political and Legal Anthropology Review*, 42(1), 68-84.
<https://doi.org/10.1111/plar.12281>
- Khmiliar, O., Popovych, I., Hrys, A., Pavliuk, M., Zavatska, N., Lytvynenko, O., & Blynova, O. (2020). Spatial Regulation of Personality Behavior in the Conditions of Progression of the COVID-19 Pandemic. *Revista Inclusiones*, 7(Especial), 289-306.
<http://www.revistainclusiones.org/index.php/inclu/article/view/1760>
- Kononenko, O., Kononenko, A., Stynska, V., Kachmar, O., Prokopiv, L., Katolyk, H., & Popovych, I. (2020). Research of the factor structure of the model of world view settings at a young age. *Revista Inclusiones*, 7(3), 98-116.
<http://www.revistainclusiones.org/index.php/inclu/article/view/1618>
- Kulikov, L. V. (2004). *Personality psychobiogene*. St. Petersburg: Smysl.
- Kuzikova, S., Kuzikov, B., Shcherbak, T., Blynova, O., Vavryniiv, O., Khmiliar, O., & Popovych, I. (2020a). Research of predisposition to risk of participants of extreme sports. *Revista Inclusiones*, 7(Especial), 43-58.
<http://www.revistainclusiones.org/index.php/inclu/article/view/1740>
- Kuzikova, S., Shcherbak, T., Popovych, I., Blynova, O. & Skyba, O. (2020b). Psychological features of subjective vitality and hardiness of representatives of parachute sports. *International Journal of Applied Exercise Physiology*, 9(9), 172-177. <https://doi.org/10.26655/IJAEP.2020.9.21>
- Leontiev, D. A. (2014). Personality development in normal and difficult conditions: challenges and resources. *Cultural and historical psychology*, 3, 97-106.
- Leontiev, D. A. & Rasskazova, E. I. (2006). Hardiness-test. Moscow: Smysl.
- Maddi, S. R. (2004). Hardiness: An Operationalization of Existential Courage. *Journal of Humanistic Psychology*, 44, 279-298.
<https://doi.org/10.1177/0022167804266101>
- Maddi, S. R. (2006). Hardiness: The courage to grow from stresses. *The Journal of Positive Psychology*, 1(3), 160-168.
<https://doi.org/10.1080/17439760600619609>
- Malkin, V., Rogaleva, L., Kim, A., & Khon, N. (2019). The hardiness of adolescents in various social groups". *Frontiers in Psychology*, 10, 24-27.
<https://doi.org/10.3389/fpsyg.2019.02427>
- Petkanopoulou, K., Sánchez-Rodríguez, Á., Willis, G. B., & Chryssochoou, X. (2018). Two Countries in Crisis: Economic Inequality in the EU and Disidentification with Europe in Spain and Greece. *Journal of Cross-Cultural Psychology*, 49(6), 888-906. <https://doi.org/10.1177/0022022117751201>
- Popovych, I., Zhigarenko, I., Losiyevska, O., Dovbenko, S., Kashyrina, Ye., Shevchenko, R., & Piletska, L. (2020). Research of Achievement Motivation's Impaction the Career Orientations of Future Managers of

- Organization. *Revista Inclusiones*, 7(Especial), 247-263.
<http://www.revistainclusiones.org/index.php/inclu/article/view/1231>
- Portnoy, A. G., Relyea, R. M., Decker, S., Shamaskin-Garroway, A., Driscoll, M., Brandt, A. C., & Haskell, G. S. (2018). Understanding Gender Differences in Resilience Among Veterans: Trauma History and Social Ecology. *Journal of Traumatic Stress*, 31(6), 845-855. <https://doi.org/10.1002/jts.22341>
- Rahimiati, A., Zare, H., & Yazdani, H. (2018). Increasing Organizational Agility based on Effective Meta-Organizational Parameters. *Postmodern Openings*, 9(4), 140-156. <https://doi.org/10.18662/po/49>
- Rogers, C. R. (1951). *The theory of therapy, personality and interpersonal relationships, as developed in the client-centered framework*. Boston.
- Rollnick, S., Heather, N., Gold, R., & W. Hall. (1992). Development of a short 'readiness to change' questionnaire for use in brief, opportunistic interventions among excessive drinkers. *British Journal of Addiction*, 87, 743-754. <https://doi.org/10.1111/j.1360-0443.1992.tb02720.x>
- Sandvik, A. M., Bartone, P. T., Hystad, S. W., Phillips, T. M., Thayer, J. F., & Johnsen, B. H. (2013). Psychological hardiness predicts neuroimmunological responses to stress. *Psychology, Health & Medicine*, 18(6), 705-713. <https://doi.org/10.1080/13548506.2013.772304>
- Sandu, A., & Vlad, L. (2018). Beyond Technological Singularity-the Posthuman Condition. *Postmodern Openings*, 9(1), 91-108.
<https://doi.org/10.18662/po/07>
- Shevchenko, R., Popovych, I., Spytka, L., Nosov, P., Zinchenko, S., Mateichuk, V., & Blynova, O. (2020). Comparative analysis of emotional personality traits of the students of maritime science majors caused by long-term staying at sea. *Revista Inclusiones*, 7(Especial), 538-554.
<http://www.archivosrevistainclusiones.com/gallery/45%20VOL%207%20NUM%20ESPECIAL%20EUROASIA.pdf>
- Sunguh, K. K., Abbas, A., Olabode, C. A., & Xuehe, Z. (2020). Do identity and status matter? A social identity theory perspective on the adaptability of low-status expatriates. *Journal of Public Affairs*, 19(4).
<https://doi.org/10.1002/pa.1938>
- Tarescavage, M. A. (2020). Science Wars II: The insidious influence of postmodern ideology on clinical psychology (commentary on "Implications of ideological bias in social psychology on clinical practice"). *Clinical Psychology: Science and Practice*, 27(2), <https://doi.org/10.1111/cpsp.12319>
- Tomaszek, K., & Muchacka-Cymerman, A. (2020). Thinking about My Existence during COVID-19, I Feel Anxiety and Awe – The Mediating Role of Existential Anxiety and Life Satisfaction on the Relationship between PTSD Symptoms and Post-Traumatic Growth. *Int. J. Environ. Res. Public Health*, 17, 7062. Retrieved from <https://doi.org/10.3390/ijerph17197062>

- Tsiuniak, O., Pyslar, A., Lialiuk, G., Bondarenko, V., Kovtun, O., Los, O., & Popovych, I. (2020). Research of interdependence of variables and factor structure of masters' readiness for innovative pedagogical activity. *Revista Inclusiones*, 7(3), 427-452.
<http://www.revistainclusiones.org/index.php/inclu/article/view/1645>
- Vasylenko, O., Komar, T., Pilishek, S., Posvistak, O., & Potapchuk, Y. (2020). Diagnosing the Negative Psycho-Emotional States among Students. *Revista Romaneasca pentru Educatie Multidimensionala*, 12(1), 39-52.
<https://doi.org/10.18662/rrem/198>
- World Medical Association Declaration of Helsinki. (2013). *Ethical principles for medical research involving human subjects*, 310(20), 2191-4.
<https://doi.org/10.1001/jama.2013.281053>
- Zabrodin, Y. M. (2002). *Personality psychology and human resource management*. Moscow: Finstatinform.