Psychological factors of secondary school graduates' hardiness

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Abstract

The article examines the personal qualities of secondary school graduates that determine their hardiness at their professional self-determination. The modern approaches defining hardiness essence and factors, and peculiarities of its development are analyzed. The factors contributing to the enhancement of an individual's hardiness in the situation of professional self-determination are considered.

Hardiness is understood as a holistic phenomenon of a personality that mediates stress impact on psychological well-being and health. Self-understanding and self-acceptance of secondary school graduates, their life goals, and life meanings, confidence in themselves and their capabilities are important. It is the psychological basis of personal resilience and life senses.

Keywords: hardiness, components of hardiness, personal resource of hardiness, professional self-determination, self-acceptance, life goals.

Introduction

The proposed research is important due to a lot of stressful factors influencing general school graduates (choice of a direction for future professional self-realization, final exams, personal self-determination, etc.). As learning can be a source of many stresses for school graduates, and these stresses can become significant barriers to comprehensive self-realization and full-fledged disclosure of personal potential, so research on the applied aspects of school graduates' hardiness, in particular, their personal characteristic contributing in successful stress overcoming are important for psychological and pedagogical applications.

In the current crisis of social development, the role of another risk factor is significantly increasing. It is young people's mental health. The period of secondary school graduation is particularly sensitive as it is accompanied by professional and social uncertainty about the future. So, it is especially important to identify psychological factors that help secondary school graduates to overcome difficult situations without health losing. Many studies confirm that the key role in successful withstanding stressful situations at learning and professional work play such existential psyche phenomenon as hardiness. It helps to overcome stresses and influences actualization of various personal characteristics in adverse situations (Bartone, 2007; Maddi, Khoshaba, Harvey, & Fazel, 2010; Seligman, & Csikszentmihalyi, 2000; Steptoe, & Fancourt, 2019).

Many authors developed the problem of difficult or extreme life situations. They are based on such concepts as coping strategies, overcoming strategies for difficult life situations or post-traumatic stress disorders, relations between stressful life situations and diseases, etc. (Maddi, 2006, 2013; Kryukova, 2010; Haghighatgoo, Besharat, & Zebardast, 2011). Thus, hardiness is a kind of psychological analogue of a person's life core that reflects the degree of overcoming by an individual of difficult circumstances or adaptation to them, as well as amount of efforts made for self-cultivation and for overcoming of unfavourable life circumstances.

In the research of American psychologists D. Khoshaba and S. Maddi (1994), who introduced for the first time the concept of 'hardiness', this phenomenon has three components: commitment, control and challenge. The first hardiness component is commitment. It is an important characteristic of one's attitude to oneself, the world around, and the nature of interactions with it, which gives strength and motivates an individual to self-realization, leadership, a healthy way of thinking and behaviour. It helps an individual feel meaningful and valuable enough to be fully involved in solving own life challenges, without paying attention to stresses or adverse changes. The second component is control over circumstances that means searching for ways to influence results of stressful changes, to prevent falling into a state of helplessness and passivity. The third component is challenge. It helps a person to be open to the world, other people, and

society. Its essence lies in a person's perception of his/her life events and problems as a challenge and a test for him/herself. At the same time, all three components of hardiness are important in order to maintain health, optimal working efficiency and activity in stressful situations (Khoshaba, & Maddi, 1999; Maddi, 2006).

The development of humanistic ideas brings the problem of health psychology to an existential level. It is 'courage to be', 'hardiness' (Bowling, Banister, Sutton, Evans, & Winsdor, 2002; Ryan, & Deci, 2017; Maddi, 2006 and others). The understanding of psychological well-being is also changing in the context of health preservation. After all, psychological health, as a psychological characteristic of a mature personality, fills an individual with a subjective sense of well-being, and a prerequisite for it is finding of a true self-view (Ryff, & Singer, 1998).

So, an individual's hardiness is an internal resource, which depends on a person, precisely because he/she can rethink and change what contributes to maintaining of his/her physical, psychological, and social health, a setting that gives a value and meaning for his/her life in all situations (Maddi, 2005). It is a system of stable characteristics, understood as an individual's resources and contributing to his/her successful adaptation during practical mastery of the outside world. Hardiness also performs an important buffer function (Peterson, & Seligman, 2004). Hardiness encompasses the phenomenology of an individual's basic life settings as an integral personal quality, adaptive potential and behavioural strategies to overcome stresses and existential anxiety. Hardiness is manifested in overcoming difficulties, as an ability to maintain faith in oneself, to be confident in oneself, one's capabilities and capacity for effective mental self-regulation.

We believe firmly that the hardiness' phenomenon includes far more than three components. Considering hardiness as an individual's holistic characteristic, we understand it as an open self-organized system of relations with the world and a necessary resource contributing to improvement of the individual's physical and mental health, to successful adaptation in difficult life situations, situations of choice related to self-determination, self-realization and personality transcendence.

Therefore, it is important to study hardiness as a resource for personal resilience, which will allow the person to accept adequately all societal challenges, overcome difficult situations and optimally implement capabilities in different life situations. Important factors and components of psychological hardiness are: personal autonomy, self-efficacy, self-attitude, vision for the future. Personal autonomy characterizes a person as an independent and self-dependent agent, able to withstand external influences, independently determine own behaviour and adequately assess own capabilities. Self-efficacy shows person's competence and confidence at fulfilment of a particular task. It is the third important determinant of a person's self-realization. Self-attitude, as a personal trait, closely linked to life and activity goals, value orientations. Self-attitude is an important factor of person's stability and integrity. Vision for the future (including life goals and meanings) arises from the motivational processes of goal setting and determines integration of the past, present and future into an individual's psychological life space.

The performed theoretical analysis substantiates our empirical research on secondary school graduates' hardiness as an individual's resource, which include a study of hardiness predictors and specific links between hardiness components and personal qualities.

The object of the research is hardiness as a holistic phenomenon of a personality.

The aim of the research is to identify the psychological characteristics and factors that determine the school graduates' hardiness at the stage of their professional self-determination.

Methods and organization of the research

In our empirical study we used S. Maddi Hardiness Scale (Leontev, & Rasskazova, 2006) to determine an individual's hardiness. The following methods we used to uncover and extend the content of hardiness and to determine its personal determinants: Ryff's Scales of Psychological Well-being (Ryff, 1995) and the questionnaire of self-attitude (Stolin, & Pantileev, 1988).

For statistical analysis of the obtained data, we used the following methods of mathematical statistics: correlation, regression analysis. The processing of the obtained empirical data was carried out using the statistical software package SPSS 21.0 for Windows.

Participants of the research

The total number of the respondents was 156 people studied in the 11th (graduating) forms of secondary schools in Kyiv (Ukraine), 69 boys and 87 girls. The respondents' age was from 16 to 18 years (average age is 17 years).

Results of the research

We should note that a large part of the respondents showed results lower than average, by comparing the obtained data with the normative indicators (Leontev, & Rasskazova, 2006). Figure 1 presents the obtained data concerning the basic components of hardiness.

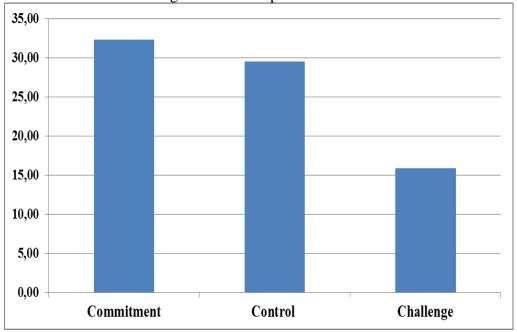


Figure 1. Basic components of secondary school graduates' hardiness

The frequency data distribution shows that 'commitment' indicators of 60% of secondary school graduates are somewhat lower than the normative ones. This means that such respondents are not really satisfied with their activities. This may be due to insufficient knowledge and experience and confidence in implementation of their capabilities. As for the 'control' and 'challenge' indicators, these characteristics are formed at the above average level at 52% and 58% of the respondents respectively.

About half of the school graduates are still convinced that they can influence their own lives. They believe that they are able to make important life choices on their own. Such respondents are open to experience and believe that such gained experience is a guarantee for success.

In order to identify the factors influencing formation of the hardiness components at secondary school graduates during their professional self-determination, we have carried out a correlation analysis between indicators of hardiness and important personal characteristics, such as:

- self-attitude and its components: self-respect, autosympathy, expected attitude of others, self-confidence, self-acceptance, self-leadership, self-blame, self-interest and self-understanding;
- components of psychological well-being: positive relationships with others, autonomy, environmental mastery, personal growth, purpose in life, self-acceptance.

We analyze the obtained results in accordance with the above plan:

1. We can see the significant strong relation with virtually all indicators except self-leadership and self-understanding. They are less related to hardiness, by analyzing the relation between the hardiness indicators and the self-attitude indicators of secondary school graduates (see Table 1).

Table 1. The relation between secondary school graduates' hardiness and self-attitude

	General self-attitude	Self-respect	Autosympathy	Expected attitude of others	Self-confidence	Self acceptance	Self-leadership	Self-blame	Self-interest	Self-understanding
Commitment	0.71**	0.57**	0.41*	0.78**	0.55**	,66**	0.14	-0.38	0.50**	0.48*
Control	0.56**	0.65**	0.53**	0.59**	0.69**	,63**	0.35	-0.45*	0.46*	0.24
Challenge	0.55**	0.59**	0.47*	0.64**	0.63**	,61**	0.23	-0.36	0.49*	0.24
General hardiness	0.68**	0.66**	0.51**	0.76**	0.69**	0.71**	0.26	-0.44*	0.54**	0.38

Note: * - correlation is significant at the level 0.05; ** - correlation is significant at the level of 0.01

The results demonstrate (see Table 1), that all hardiness indicators are related with a set of personal characteristics determining an individual's self-attitude: self-respect, self-confidence, self-acceptance, self-understanding, and expected attitude of others.

In our opinion, the obtained empirical data are an evidence of the dynamic equilibrium between positive and negative processes aimed at maintaining a coherent and positive view of oneself. Obviously, positive social experiences, expanding the scope of social influences, stimulate positive individual experiences (attitudes to oneself) and make personal identity more differentiated.

2. An individual's psychological well-being is an important criterion of school graduates' hardiness and, at the same time, an interrelated phenomenon. Psychological well-being means the subjective sense of self-integrity and meaningfulness of one's existence (Ryff, 1995).

The Figure 2 presents the formation of the psychological well-being components at secondary school graduates.

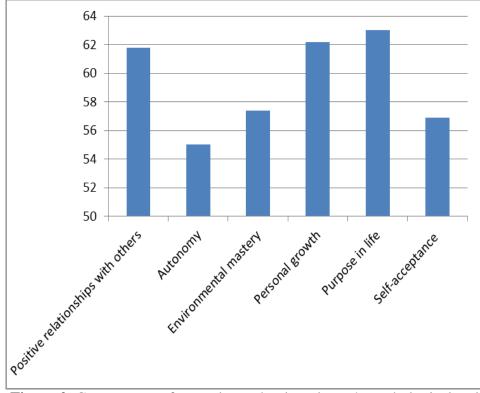


Figure 2. Components of secondary school graduates' psychological well-being

All components of the psychological well-being of secondary school graduates are formed at the average level, as evidenced by the comparison of average values and standard deviations of the obtained indicators with the normative data (Ryff, 1995).

Figure 2 demonstrates that the values of 'autonomy' and 'self-acceptance' are somewhat lower.

The analysed relation of the hardiness indicators and the psychological well-being indicators (see Table 2) of school graduates presents the existing significant strong links with self-acceptance, positive relationships with others, purpose in life, autonomy, meaningful life, in words, with almost all researched indicators: 'commitment' correlates with positive relationships with others, ability to control external reality, self-acceptance, presence and awareness of life goals and meaningfulness of life; 'control' correlates with the feeling of personal autonomy, as well as with self-acceptance, presence and awareness of life goals and meaningfulness of life; 'challenge' correlates with the graduates' ability to control external reality and also with self-acceptance, presence and awareness of life goals and meaningfulness of life.

Table 2. The relation between secondary school graduates' hardiness and psychological well-being

	Psychological well- being	Positive relationships with others	Autonomy	Environmental mastery	Personal growth	Purpose in life	Self-acceptance
Commitment	0.65**	0.41*	0.26	0.57**	0.37^{*}	0.41*	0.71**
Control	0.56**	0.08	0.58**	0.52**	0.23	0.51**	0.56**
Challenge	0.72**	0.35*	0.35*	0.63**	0.32*	0.56**	0.76**
General psychological hardiness	0.71**	0.33*	0.43*	0.63**	0.34*	0.54**	0.75**

Note: * - correlation is significant at the level 0.05; ** - correlation is significant at the level of 0.01

We should note that all the components of school graduates' hardiness are correlated with nearly all indicators of psychological well-being, which, as S. Maddi points out, is important for health preservation and optimal levels of efficiency and activity in stressful conditions (Maddi, 2006).

Generally, the relation analysis results indicate that the personal qualities of secondary school graduates have close internal structural relations and interdependence. In our view, this is evidence to the multi-dimensional personal hardiness' determination, personal resilience and the existing meanings of life.

So, the research results show that the existence of life goals, a meaning of life, as well as confidence in oneself and own capabilities are important and influence on one's hardiness, so a person has an opportunity to make life choices confidently and correctly. Of course, external support and relationships with others, and not just belief in themselves, are also important for secondary school graduates, this also increases their confidence in their potential implementation. This fact is evidenced by the somewhat lower correlation between their hardiness and indicators of personal growth.

Needless to say, the development of all three components of hardiness (Maddi, 2006) is important for an optimal level of hardiness in general (Maddi, 2006). We used the regression analysis to determine the prognosis for development of the third component of secondary school graduates - the 'challenge' indicator, which is the most important (see Figure 1). The essence of this

component is the perception of life events and problems by an individual as a challenge and a test for him/her (Khoshaba & Maddi, 1999).

The main results of model construction are shown in Table 3.

Table 3. The model of regression analysis for 'challenge' indicator

				Std. Error of
Model	R	R Square	Adjusted R Square	the Estimate
1	.762 ^a	.580	.563	3.6105

a. Predictors: (const), self-acceptance, purpose in life, autonomy

b. Dependent variable: challenge

Interesting enough, the Model 1 predictors are self-confidence, self-respect, self-acceptance. The model is considered valid if the R-square is greater than 0.5. The value obtained is greater than 0.5, so the resulting model is statistically significant.

Table 4 presents the resulting coefficients of the linear relation of the 'challenge' indicator with the personal characteristics-predictors.

Table 4. Linear coefficients for the predictors

	Non	-standardized	Standardized	t	Signif.
Model	coefficients		coefficients		
	В	standard error	Beta		
(const)	9.209	4.314		2.134	.043
self-acceptance	.440	.075	.762	5.877	.000
purpose in life	1.985	.150	.447	13.211	.000
autonomy	1.039	.164	.256	6.351	.000

Dependent variable: challenge

Therefore, the predictors influencing positively on the 'challenge' indicator (willingness to act even in the absence of reliable guarantees of success, at one's own risk, considering that life is a way of gaining experience) are: self-acceptance (acceptance by an individual of him/herself as he or she is, regardless of self-evaluations of his/her merits and disadvantages); purpose in life (sense of comprehension of an individual's past and present; existing worldview and beliefs that give meaning to life, orientation to act to achieve the purpose), autonomy (self-determination and independence, ability to resist social pressure, to think and behave independently, to regulate own behaviour by personal standards).

It is indisputably important to provide secondary school students with psychological and pedagogical assistance, to develop these qualities, as well as help them understand that their lives are subject to their own control at the examined life stage. Secondary school graduates are agents of their own lives, capable of making their own decisions and choosing a direction of further self-realization.

Discussion

The senior secondary school age is the age of transition to adulthood and the peculiarities of this transition undoubtedly have an impact on students' entire future. Therefore, an important psychological and pedagogical task during this period is to develop such psychological qualities and to determine such life values and goals that help them counteract the negative effects of the environment. The reason is the conditions of modern young people's life that takes place often in difficult circumstances, stimulating the development of stress, and the current life conditions require maximum adaptation to them (Mund, 2016; Steptoe, & Fancourt, 2019; Weinstein, 2014.)

Our research results present that the great importance in ensuring school graduates' hardiness belongs to the experiences of own identity, self-worth, self-understanding, positive self-acceptance, the ability to control own activities and use opportunities effectively, create conditions

and circumstances to meet personal needs and achieve goals; the ability to plan own time and ability to independently define and regulate their own lives have great importance in ensuring secondary school graduates' personal hardiness. Moreover, at this age and in the context of psychological hardiness development, the skills of self-control and self-regulation are coming to the fore, which gradually begin to be guided by the meanings revealed by adolescents at their interactions with the world (Weist, Lever, Bradshaw, & Owens, 2014). Changes of values and meanings take place at this age. This is a period when paradoxically opposite meanings coexist. The meanings are not yet organised into a stable hierarchy but substantially determine the nature of further meaning formation (Bronk, 2014; Kamtsios, & Karagiannopouloub, 2016).

Thus, the secondary school students' hardiness, like young people in general, can be enhanced by emergent meanings that shape personal values and support an individual's hardiness in the world. Thus, hardiness means a personal formation developed during the life. The model of personal development offered by S. Maddi understands this development as the development of hardiness, which is the way to the sense of subjectivity and real consciousness (Maddi, 2013).

Actually, our empirical research results preset the personal resources of secondary school graduates' hardiness and, at the same time, conditions for successful choice of professions by them, further professional and personal self-realization.

Conclusions

Our research results became the basis for defining the 'hardiness' phenomenon as a holistic personality characteristic. The hardiness is a holistic, open self-organized and self-determined system of relations between an individual and the world and a necessary resource that can contribute to enhancing the individual's physical and mental health, to successful adaptation at difficult life situations, situations of choice, transcendence of a personality.

Such understanding of the 'hardiness' phenomenon extends the existing traditional ideas, which reduce this phenomenon mainly to a three-component structure and determine it as the ability to maintain health, optimal level of efficiency and activity in stressful situations.

The leading role in an individual's hardiness development belongs to the personal characteristics that provide at least three functions related to motivational-semantic and cognitive-affective structures of a personality: an individual's resistance to the unfavourable challenges of society, freedom of choice and capability of self-realization.

Important factors and components of the 'hardiness' phenomenon of secondary school graduates at the stage of their professional self-determination are:

- 1. Positive self-attitude of secondary school graduates, including self-acceptance, self-respect, self-interest, self-leadership, etc.;
- 2. Existing goals for the future, the desire to make plans for the future, meaningful vision of own future, the ability to determine independently the path of self-development;
- 3. Personal autonomy, helping withstand external influences and determine independently own behaviour and assess adequately own capabilities;
- 4. Positive relationships with others that help to develop an individual's social competence.

Generally, secondary school graduates' hardiness is based mainly on their positive self-acceptance, experience of identity, self-worth, self-control, the ability to effectively use opportunities, create conditions and circumstances to meet personal needs and achieve goals, the ability to plan their time, to determinate and to regulate independently their own life.

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PSYCHOLOGICAL FACTORS OF SECONDARY SCHOOL GRADUATES' HARDINESS

Summary

The article examines the personal qualities of secondary school graduates that determine their hardiness at their professional self-determination. The modern approaches defining hardiness essence and factors, and peculiarities of its development are analyzed. The factors contributing to the enhancement of an individual's hardiness in the situation of professional self-determination are considered.

The aim of the research was to identify the psychological characteristics and factors that determine the school graduates' hardiness at the stage of their professional self-determination. The research sample consisted of 156 people studied in the 11th (graduating) form of secondary schools in Kyiv (Ukraine).

Hardiness has been shown to be a holistic personal phenomenon that mediates impacts of stressful factors on the psychological well-being and health of secondary school graduates. Hardiness is a holistic, open self-organized and self-determined system of relations between an individual and the world and a necessary resource that can contribute to enhancing the individual's physical and mental health, to his/her successful adaptation at difficult life situations, situations of choice, self-determination, and transcendence of a personality.

Our empirical research results present the personal resources of school graduates' hardiness and, at the same time, the personal resources for their successful choice of profession, further professional and personal self-realization. Self-understanding and self-acceptance, existing life goals and meanings of life, confidence in oneself and own capabilities, which are the psychological basis of personal resilience and a meaning of life, are important for school graduates' hardiness. The leading role in hardiness belongs to the personal characteristics that provide at least three functions related to motivational-semantic and cognitive-affective structures of a personality: an individual's resistance to the unfavourable challenges of society, freedom of choice and self-realization.

Important factors and components of the 'hardiness' phenomenon of secondary school graduates at the stage of their professional self-determination are:

- 1. Positive self-attitude of secondary school graduates, including self-acceptance, self-respect, self-interest, self-leadership, etc.;
- 2. Existing goals for the future, the desire to make plans for the future, meaningful vision of the own future, the ability to determine independently the path of self-development;
- 3. Personal autonomy, helping withstand external influences and determine independently own behaviour and assess adequately own capabilities;
- 4. Positive relationships with others that help to develop an individual's social competence.

Generally, secondary school graduates' hardiness is based mainly on their positive self-acceptance, experience of identity, self-worth, self-control, the ability to effectively use opportunities, create conditions and circumstances to meet personal needs and achieve goals, the ability to plan their time and to determinate and to regulate independently own life.

Keywords: hardiness, components of hardiness, personal resource of hardiness, professional self-determination, self-acceptance, life goals.

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