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## Chapter

# Resourcefulness as an Important Indicator of Personal Well-Being

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## Abstract

The study of the dynamics and features of students' personal resourcefulness in the conditions of war in Ukraine is an important task, since understanding the peculiarities of the resourcefulness functioning will allow carrying out the necessary measures for its maintenance, recovery and development. The authors proposed a model of personal resourcefulness as a metacognitive experience. In the study, an express questionnaire "Personal resources" (O. Savchenko, S. Sukach) was used for the diagnosis of resourcefulness level. The study was conducted on a sample of 69 students of KNEU. To solve different tasks, several methodologies were used: factorial experimental design, comparative study of the same group in different conditions, and clustering of empirical data to determine different types of students' resourcefulness. It was found that the overall level of personal resourcefulness is a significant factor in subjective, psychological, social and global well-being. Five types of personal resourcefulness were identified, namely "high resourcefulness," "high-stress resistance," "inefficient use of strategies," "passivity in the search for resources" and "high emotional exhaustion." Students with different types of resourcefulness have significant differences in well-being. The negative changes in students' personal resourcefulness were revealed in a condition of the war in Ukraine (decrease in the level of overall resourcefulness and increase in emotional exhaustion). It has been established that students do not actively use restoring resource strategies in a prolonged stressful situation.

**Keywords:** well-being, global well-being, subjective well-being, psychological well-being, social well-being, resource, resourcefulness, resource exhaustion

## 1. Introduction

The issue of human well-being so fascinates modern scientists that F. Martela & K. Sheldon [1], in analyzing the differences between various views on well-being, separate at least 45 different ways of definition of this phenomenon and identify at least 63 different constructs. Such a state of this scientific field significantly complicates the study of well-being. Thus, in psychological research, one can find quite different terms used in relation to the category of "well-being." In particular, these are such concepts as happiness/pleasure, subjective well-being, psychological well-being,

life satisfaction, authentic happiness, positive development, developmental assets, flow and meaning [2].

Some modern researchers also draw attention to the fact that “existing definitions of happiness, subjective well-being, and quality of life suggest conceptual overlap between these constructs” [3], on the basis of which they can be used as alternatives. However, modern transcultural studies prove the non-invariance of constructs that represent different dimensions of well-being – happiness, life satisfaction and perceived social support. A number of focus groups with students conducted in different countries of the world and content analysis of the results of their work made it possible to identify “two dimensions of well-being: happiness and satisfaction with life as a measure of subjective well-being, and perceived social support as a measure of social well-being” [4]. We can also add that M. Thorburn, carrying out a critical analysis of well-being, noted that “often underpinning analysis are contrasting theories of well-being, e.g. subjective constructs that value highly reflections on personal experiences and individual fulfillment, and objective theories that emphasize more through specific criteria the societal benefits of well-being” [5]. O. Savchenko et al. [6], based on a study of organizational staff well-being, also proved that the levels of subjective and psychological well-being are not consistent, which confirms the non-equivalence of these constructs.

W. Wilson introduced the concept of subjective well-being in 1960 in his thesis [7]. The author clearly emphasized that this phenomenon refers only to an individual's subjective assessment of their life and internal experience, excluding external criteria. However, for more than 60 years, this concept still has not received a clear definition. Its content depends on the field of psychology in which it is used. In the early stages, researchers viewed it as a multifaceted concept that includes cognitive and emotional dimensions that can be defined as life satisfaction and happiness [8]. These dimensions are distinct but correlated [7, 9, 10].

One of the most famous theories of subjective well-being proposed by E. Diener and F. Fujita [9] includes pleasure, positive and negative emotions. These components form two dimensions: cognitive (intellectual satisfaction in different areas of life) and emotional (bad-good mood as an emotional background). At later stages, researchers suggested analyzing well-being at global and specific levels. The global level of analysis of subjective well-being involves direct assessment of one aspect, which is based on reflection and has high stability over time. A specific level of analysis suggests an indirect assessment using several aspects, which reveals greater sensitivity to causal variables and allows to isolate specific conditions and predictors [10]. Psychologists, based on the analysis of more than 100 scientific works, separated four groups of theories of subjective well-being: fulfillment and engagement; personal orientation; evaluative theories and emotional theories [11]. Summarizing the results of the theoretical analysis, it is possible to define subjective well-being as a complex experience based on a person's cognitive-emotional assessment of the quality of their own life, which reflects the degree of need satisfaction and compliance of their current state with personal standards of success, favourability and happiness.

The concept of “psychological well-being” was separated from the concept of “subjective well-being” in the 80s of the last century. C.D. Ryff [12, 13] defined it as a process of self-realization and self-determination based on the satisfaction of basic psychological needs. In contrast to subjective well-being, psychological one is “a person's potential to realize a meaningful life and to meet real life challenges” [14].

Other researchers suggested that “well-being is seen as lying at the opposite end of a spectrum to the common mental disorders (depression, anxiety)” [15].

However, we note that sustainable well-being does not exclude experiencing painful or negative emotions (disappointment, failure and grief) from time to time. Such experiences are an important part of human life. The ability to manage these negative or painful emotions is essential to long-term well-being. Summing up, we state that the concept of psychological well-being means productive functioning of the personality, which includes the development of one’s potential, controlling the events of one’s life, awareness of the goal (for example, working to achieve valuable goals and self-realization), establishing positive relationships with others.

C.L.M. Keyes is considered one of the first to propose a theoretical model of social well-being that extended the psychological well-being model. The researcher defined social well-being as “the appraisal of one’s circumstance and functioning in society” [16]. According to this model, an individual evaluates the quality of their relationships with other people, their neighbors and their communities. Social well-being is a phenomenon that reflects community relations of person that focus on the particular social challenges [17]. J.S. Larson [18] considered social adjustment and social support as components of social well-being.

Thus, we consider social well-being as a separate form of personal well-being, which reflects their ability to effectively interact with others, establish and maintain healthy interpersonal relationships, and adapt to the social environment with respect for social norms and rules. The constructs of subjective, psychological and social well-being reflect various aspects of personal well-being and close relationships. Based on the analysis of publications on well-being indicators, we propose an understanding of global well-being as a meta-form of well-being that integrates key objective and subjective indicators of subjective, psychological and social well-being in a balanced way.

In this way, in psychology, there are several approaches to the analysis of well-being and a large number of its forms, among which the most famous are subjective, psychological, social and global. Our experience in studying the personal well-being, acquired in the difficult conditions of total social isolation and a prolonged stressful situation caused by a full-scale war on the territory of Ukraine, shows the need to consider the level of psychological resources as an important indicator of the state of personal well-being. We suppose that the level of resourcefulness determines the different forms of personal well-being when a person is in complex, stressful situations.

As of today, the resource approach to the construct of well-being is represented mainly by studies of the links between different forms of well-being and various resources in their different understandings [9, 19, 20].

The purpose of our study is to investigate the level of resourcefulness as an important factor in the experience of various forms of personal well-being. To achieve the goal, we have formed the following tasks:

1. To conceptualize the construct “personal resourcefulness.”
2. To present a new express methodology for diagnosing the personal level of resourcefulness and its individual components.
3. To consider the overall level of personal resourcefulness as a factor of the experience of subjective, psychological, social and global well-being.

4. To identify the types of people who have differences in the experience of resourcefulness.
5. To establish differences in the experience of psychological well-being by people with different types of resourcefulness.
6. To identify changes in the resourcefulness of persons in a prolonged stressful situation caused by the war on the territory of Ukraine.

The author's model of "Personality Resourcefulness" was proposed as a direction for the study of personality resilience. According to our approach, resourcefulness is a complex experience that arises on the basis of a person's assessment of the level of their available resources, the possibility of their rapid mobilization and easy recovery in a post-stress situation. Undoubtedly, the experience of resourcefulness is a metacognitive experience, as it reflects a person's knowledge about his or her current capabilities, about the strategies available in the person's repertoire.

The main principles of this model are based on the statements of the COR theory<sup>1</sup> [21–23], cognitive energetics theory [24], strategic-resource model [25, 26] and resource model of self-control [27].

Thus, we consider resourcefulness as an experience that arises on the basis of cognitive assessment of both the problem situation (task, external requirements) and the state of the individual, which regulates the processes of resource allocation, mobilization and recovery. This approach corresponds to the basic principle of COR theory that people are motivated to acquire, protect and foster the acquisition of their resources [23]. The process of accumulation and use of resources is regulated by the rational principle of personality functioning at the behavioral level: to maximize gains and limit losses, with a dominant attitude to reduce losses. Thus, the individual is unconsciously oriented towards resource conservation, and this explains the fact that resource allocation tends to be conservative "because mental effort is costly" [28]. The regulation of resources is carried out in accordance with the basic principle of cognitive energetics theory. An individual's behavior (purposeful cognitive activity) is the result of the ratio of a driving force and a restraining force [24]. In terms of strength, a driving force may be slightly stronger than a restraining force, which would correspond to a rational attitude towards saving personal resources. According to cognitive energetics theory, the intensity of a driving force depends on goal importance and the pool of available mental resources, while a restraining force is determined by "individual's inclination to conserve resources, current task demands, and competing goals" [24]. Focusing on the provisions of the strategic-resource model, we consider the state of resources as a subjective state that an individual can regulate by various means, strategies. At the same time, a number of these strategies can be used consciously, based on metacognitive knowledge about the peculiarities of their mental activity and others – impulsively, under the influence of an actual assessment of existing efforts. Some strategies are aimed at preventing the state of lack of resources and some are aimed at rapid mobilization of forces [25]. Researchers believe that the ratio of feelings of "energy" and "tension" regulate the level of resources of the individual. The ratio

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<sup>1</sup> COR theory - Hobfoll's theory of conservation of resources.



of these two experiences is the “tachometer,” a mechanism that indicates whether to save or to spend effort [25, 26].

Now, we will briefly describe the main ideas that guide us in developing the concept of “resourcefulness.”

First, resources are understood as certain means (objects, personal characteristics, conditions and energy (physical and mental)), the availability, sufficiency and accessibility of which contribute to the achievement of goals and the maintenance of well-being [21, 29]. When a person experiences the inability to mobilize resources, their deficit or complete absence, it significantly complicates the achievement of the goal and forms a negative emotional background. These negative subjective states, including stress, anxiety and fatigue [26], block the possibility of experiencing well-being and are indicators of a low level of resourcefulness of the individual. All psychological resources have both objective and subjective components, external or internal locus relative to the individual [23]. Thus, some aspects of resources can be observed by researchers, as they manifest in behavior, in physiological reactions; most aspects of resources are experienced internally by individuals, which is reflected only in self-descriptions, self-evaluations, etc.

Second, internal resources, such as energy, self-efficacy, are “key as they provide the energy and motivation to seek and maintain external resources” [23]. The shortage of internal resources makes access to other resources (facilities, conditions, social support) difficult or impossible, and it is much more difficult for a person to compensate for already real resource losses or even potential losses. “Lack of access creates vulnerability to further loss under stress” [23]. As S.E. Hobfoll, “those who lack resources are more likely to experience extreme consequences” [22]. Therefore, as a consequence, a person, being aware of his/her vulnerability and based on past experience, will try to control the level of resources, timely restore and enrich resources, invest some resources, less valuable, in more valuable ones (for example, time and energy are invested in status and power). The experience of stressful events and recovery after them forms a rational attitude of the individual to the use of available resources and prevention of resource shortage. At the same time, researchers do not exclude the possibility of the individual from time to time to disable rational control of resources, which can have both negative consequences for the individual – emotional exhaustion, burnout, ego devastation [27] and positive – broadening the view of the problem, considering different patterns of behavior. Reducing the level of control over resources and one’s behavior allows for replenishing the lack of resources, including metabolic ones [30].

Third, there are different types of psychological resources. Thus, S.E. Hobfoll distinguishes objects, personal characteristics, conditions and energy. These resources have both instrumental value, as they allow to achieve the goal, and symbolic value, as they help people to understand themselves, their priorities and values [23, 29]. D. Leontiev proposed a classification of psychological resources that combines the following categories: instrumental, self-regulatory, motivational and resilience resources [29]. O. Savchenko [31] identified three levels of functioning of psychological resources of the individual: cognitive, metacognitive and personal. Thus, at the cognitive level of functioning, the resources are the available mental structures, formed intellectual operations and automated behavioral reactions that ensure the solution of the problem. The indicator of their presence is intellectual experiences and feelings. Metacognitive resources is a system of regulatory properties of the individual,

including metacognitive knowledge, formed metacognitive operations and strategies that ensure the organization of mental activity of the individual in problem situations, regulation of his intellectual functions. An indicator of the availability and sufficiency of resources are integrative experiences of self-efficacy, confidence, sense of knowledge, etc. Personal resources are a system of personal properties, including complex mental models, meaning-making and self-regulatory operations, complex behavioral programmes that provide rethinking of one's own experience, creation of new means of solving problems, application of various semantic contexts, etc. The indicator of availability and sufficiency of resources is hope, a sense of self-reliance and the ability to construct one's life.

Fourth, the classification of resources by S.E. Hobfoll includes the category "Energy," which combines time, money, knowledge and actual physical and mental energy. Their main value is that they provide the acquisition of other types of resources [21]. Psychologists have conceptualized mental energy as "the intensity of subjective feelings about one's ability to accomplish tasks in daily life" [32]. The structural components of mental energy are cognition (the set of abilities to execute cognitive tasks), the mood of energy (the feeling that one can complete physical and mental tasks) and motivation (the desire to execute tasks). Many factors determine the level of mental energy; the most important among them are health status, age, nutritional status and sleep [32].

In uncertain situations characterized by novelty, complexity and ambiguity of demands, mental energy levels provide an executive control mechanism that is "the ability to regulate automatic perceptual and motor processes in order to respond in an adaptive way to novel or changing task demands" [33]. To behave effectively, a person needs to constantly replenish the level of their mental energy. So, we assume that a person has the ability to control the level of mental energy. The baseline level of mental energy provides the ability of an individual to exercise energy control, as this baseline level supports consciousness and cognition. A person can also increase the level of mental energy if, according to a preliminary assessment, he expects difficulties on the way to achieving a goal or is too motivated by high rewards. Since a person is conservative in resource allocation, energy use exceeds previous energy allocation; a state of mental energy deficit is an expected state that needs to be changed through resource replenishment. "Replenishment is a necessary part of an effective mental energy management system" [28]. The level of mental energy works as an adaptive mechanism: if the energy is extremely low, the costs do not justify the results and then the person receives a signal to change the behavior or refuse to make further attempts. If a person feels a surplus of mental energy, it can be a signal to continue trying, to add more effort.

Fifth, psychological resources require constant replenishment [28]. The amount of resources required for recovery depends on two things: first, on the resource deficit experienced by the individual, and second, on the favourability of the cost-benefit trade-off experienced at the completion of the task. The actual cost-benefit trade-off can be favorable and unfavorable. Mental energy replenishment will occur if the actual cost-benefit trade-off is favorable, if the reward is sufficient given the actual amount of effort. In case of unfavorable cost-benefit trade-off, mental energy replenishment will not occur.

It is established that the more unexpected costs, the more an individual needs to replenish resources. Resource replenishment should take into account the favourability of the actual cost-benefit trade-off from the completed task, so researchers talk about strategic-resource replenishment [28]. In case of untimely replenishment

of resources, the individual's working condition may deteriorate, leading to emotional exhaustion and ego depletion. The concept of self-regulation based on resource allocation explains the state of exhaustion through the limited ability of the individual to self-control. The self-control mechanism also uses the body's resources, and this "resource is limited and runs out with use, like a sort of mental fuel that powers the will" [34]. The use of resources is time-dependent, their quantity decreases over time, and this also applies to the resources that ensure self-control. Thus, over time, a person loses both the resources necessary to perform work and the resources necessary to control this performance.

However, more recent studies indicate that ego depletion is rather a signal for the individual to cut back on exertion to conserve their remaining energy. The state of ego depletion does not indicate a complete absence of mental energy but rather signals a requirement for more rational use of psychological resources. There is also evidence that it is possible to improve the functioning of the self-control mechanism through regular exercises, self-control training [35]. Although the effect of self-control training, namely the ability to transfer improving self-control in one domain to another domain, has a small-to-medium effectiveness [36].

The conducted theoretical analysis gives us grounds for defining the construct "resourcefulness." Thus, resourcefulness is a metacognitive experience of available psychological resources, which includes a sense of the total number of resources that can be mobilized to successfully complete a task, awareness of one's ability to mobilize and restore resources based on previous experience, and knowledge of strategies for mobilizing and restoring resources.

Functioning as a metacognitive experience, resourcefulness promotes the activation of certain strategies. This functioning can also be presented at three levels: cognitive – activation of cognitive evaluation, allocation and resource mobilization strategies; metacognitive – activation of replenishment strategies in a situation of partial or complete deficit of resources; personal – organization of rest after a stressful or difficult situation, activation of strategies of resource recovery.

The previous theoretical model of resourcefulness included three components:

1. A sense of available resources and the ability to mobilize them quickly.
2. Assessment of the ability to replenish and quickly restore resources.
3. Strategies for mobilizing, replenishing and restoring resources.

In accordance with the proposed model, an express questionnaire for diagnosing the level of resourcefulness "Personal Resources" was developed [37].

## **2. Methodological framework**

We made the following assumptions to test in our study:

- H1<sup>2</sup>: The overall level of personal resourcefulness is a factor of the level of subjective, psychological and social well-being.

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<sup>2</sup> H – an empirical hypothesis.



- H2: There are different types of personal resourcefulness according to the ratio of the three components of resourcefulness.
- H3: Individuals with different types of personal resourcefulness have specific characteristics of well-being experiencing.
- H4: Against the background of prolonged chronic stress caused by a full-scale war on the territory of Ukraine, there is a tendency to reduce the overall level of students' personal resourcefulness.

The first assumption was tested using a one-way analysis of variance (ANOVA in the SPSS Statistics 26 package). One-way analysis allows for establishing relationships between independent (cause, factor) and dependent (effect) variables. The intention of a one-way analysis is “to determine whether there is an overall main effect of different levels of an independent variable on a dependent variable” [38]. In such a way, “the greater the variance (differences) between the groups of the experiment, the more likely the independent variable is to have had an effect, especially if the within-groups variance is low” [39].

We used a factorial experimental design (Factorial experiment), which allows simultaneous testing of the influence of several factors, each of which has several levels. Since we use indicators obtained in psychodiagnostic survey, all independent variables in our study were represented by three levels: low, medium and high. This is called a systematic change in the independent variable [39]. In the study, the main factor is the level of resourcefulness and also the level of expression of its components.

To determine the types of persons with different resourcefulness, we applied cluster analysis of data by the Tree clustering procedure, using the Complete Linkage strategy and the City-block (Manhattan) distances formula (STATISTICA 10.0 package). The second and third assumptions were checked using the non-parametric Kruskal–Wallis test, Median test and Mann–Whitney U-test.

To analyze the dynamic changes in the resourcefulness of Ukrainians, a comparative design was used, and measurements were carried out on one group after a time interval of 3 months. The first measurement was conducted in September 2022, and the second – in December 2022. To test the fourth assumption, Student's t-criterion for dependent measures was used.

The calculations were performed using SPSS Statistics 26 and STATISTICA 10.0 packages.

The subjects were selected for the study from a database that was created in the preliminary study (May–August 2022). This primary study was designed to create the “Personal resources” questionnaire (O. Savchenko, S. Sukach). The database was formed gradually, since the development of a new methodology requires that several procedures be carried out in sequence. As a result, 414 students of different specialities took part in the preliminary study. Faculties of Kyiv National Economic University named after Vadym Hetman were chosen as clusters. The University has eight separate faculties that prepare students for 21 specialities. Four faculties were randomly selected (Personnel Management, Sociology and Psychology Department; Economics and Management Faculty; Faculty of International Economics and Management; Faculty of Finance). Three faculties have more than three specialities (in this case, two specialities were randomly selected), and one of them has only one (Faculty of Finance). As a result, seven specialities were selected in total. Four groups were randomly selected for each speciality in the second and fourth years of study. Thus, invitations to participate in the study were sent to students of 28 academic

groups. It was important to ensure the most complete filling of each cluster, so the criterion for the completeness of the cluster was the participation of at least 85% of the composition. As a result, only students from 17 groups formed the final database. The average cluster size was 24.6 students. All participants in the preliminary study filled out the “Personal resources” questionnaire (O. Savchenko, S. Sukach).

In September 2022, we moved on to the main study. We needed to form a sample in such a way that individuals with a high, medium and high level of personal resourcefulness were equally represented in it. That allowed us to form three subgroups from a common database (414 subjects) with different levels of resourcefulness: low (151 subjects), medium (183 subjects) and high (80 subjects). For this selection, we used the procedure of randomization by levels of baseline characteristic (covariate). Randomly (tables of random values were used) 25 participants were selected from each subgroup. A Google Form with the research programme was sent to their email with asking to take part in a new study. In such way, we used several criteria for selecting subjects to form a sample for a factorial experiment:

1. an age (18+ years old);
2. university student status;
3. the level of resourcefulness, which was diagnosed in the preliminary study.

As a result, out of 69 participants who agreed to take part in this study, 23 (34.8%) students have had a low level of resourcefulness, 26 (39.1%) – a medium level, 20 (26.1%) - a high level.

	Sample (N <sup>1</sup> =69)	
	Frequency	Percentage
Gender		
Female/male	46/23	66.6/33.3
Grade		
The second year of university	44	63.77
The fourth year of university	25	36.23
University Faculties		
• Personnel Management, Sociology and Psychology Department	25	36.23
Economics and Management Faculty	31	44.93
• Faculty of International Economics and Management	13	18.84
Age		
18–19	29	42.00
20–21	19	27.54
22–23	21	30.43

<sup>1</sup>N – the number of subjects.

**Table 1.**  
*The composition of the sample.*

The research programme included six methodologies (122 statements). We oriented students to voluntary participation, increasing their motivation through motivational appeals to them. Before starting the study, we received approval from the Research Ethics Committee of the Kyiv National Economic University named after Vadym Hetman. We did not impose time limits, so the average study procedure lasted 45–50 minutes.

The composition of the sample is presented in **Table 1**.

### **3. Methods**

In total, we used 25 indicators in the study. Four indicators reflect the characteristics of resourcefulness, and 21 indicators measure different aspects of well-being (see **Table 2**).

For the study of resourcefulness, we used the “Personal Resources” questionnaire (O. Savchenko, S. Sukach), which contains 13 statements combined into three scales: “Sufficiency of resources” “Restoring resources strategies” and “Emotional exhaustion.” This questionnaire was normalized and validated on a sample of youth (N = 198). At the stage of statements creation, the methodology demonstrated a high level of differentiability (average value – 0.84). The three scales have a relatively high level of reliability-consistency of statements in a certain scale and high reliability-stability over time. Thus, “Sufficiency of resources” has 0.81 according to Cronbach’s alpha and 0.53 ( $p < 0.001$ ) according to “test-retest”; “Restoring resources strategies” – 0.70 and 0.53 ( $p < 0.001$ ); “Emotional exhaustion” – 0.66 and 0.50 ( $p < 0.001$ ). The overall indicator of resourcefulness has a value of 0.81 according to Cronbach’s alpha, which corresponds to a high level of reliability-consistency, and 0.53 ( $p < 0.001$ ) according to the “test-retest” indicator, which corresponds to a high level of reliability-stability over time [37].

It should also be noted that the resulting structure of the questionnaire does not fully correspond to the author’s theoretical model. In the empirical study, we could not obtain separate independent factors reflecting the ability to mobilize efforts and the ability to restore them. On a sample of youth, these two dimensions formed one general factor. At the same time, the scale “Emotional exhaustion,” the content of which reflects the experience of resource scarcity, was discovered rather unexpectedly. It means that the factor “lack of resources” is a very important aspect of the analysis of personal resources, especially for the subjects who are in conditions of a long-term stressful state. We hypothesize that resources are valued along two independent dimensions: actual resources that can be mobilized and restored, and resources that are lacking and insufficient for effective personal functioning. The lack of resources is experienced by the individual as limitations that do not allow mobilizing all possibilities and slow down the process of recovery. And this is where the matter of the price of resource mobilization becomes relevant. Evaluating one’s own resource state as sufficient for the implementation of a certain activity, an individual can evaluate their ability to mobilize resources in different ways: as high, in the case of high motivation and low task difficulty, and as low, in the case of low motivation and high complexity or uncertainty of the situation. In a state of emotional exhaustion, the mobilization price factor [29] begins to affect the assessment of the actual resources, and it distorts the assessment of sufficient resources. A person who is experiencing exhaustion feels that even with a simple task, resources will have to be added and then restored over a long period. As such, this can lead to re-evaluating resources,

“people may combat their sense of loss by re-evaluating the value of resources that are threatened or that have been lost” [21].

The price of mobilization is the ratio of the amount of effort (time, mental energy) spent on mobilizing resources to the amount of effort (time, mental energy) required to restore normal level of working capacity. The price of mobilization is predicted in advance; its value affects the subject’s decision-making regarding involvement in the activity and determines the specifics of this involvement.

We should also note that even though the scale of strategies previously included statements about the mobilization and replenishment of resources, the final version of the express methodology included only statements describing the restoring resources after some activity. Of course, the work on the main version of the questionnaire will continue.

Indicators of various forms of well-being were determined according to standardized methodologies of psychological diagnosis in the Ukrainian-language adaptation. The main indicators by methodologies are given in **Table 2**.

The form of well-being	Indicator	Psychodiagnostic methodology
Global	The mental health continuum	The mental health continuum-short form (MHC-SF-UA), adaptation of E. Nosenko, A. Chetveryk-Burchak [40]
	Overall level of satisfaction	The cognitive features of subjective well-being (KOSB-3) [41]
	General indicator of social well-being	Social well-being scale (C.L.M. Keyes, adaptation of A. Chetveryk-Burchak) [42]
Subjective	Positive affect	The Questionnaire on Positive and Negative Affects (OPANA, modification of PANAS) [43]
	Negative affect	
	Negative depression	
	Negative activation	The mental health continuum-short form (MHC-SF-UA), adaptation of E. Nosenko, A. Chetveryk-Burchak
	Hedonic well-being	
	General satisfaction with personal life	
Psychological	Dissatisfaction with oneself and frustration in life	The cognitive features of subjective well-being (KOSB-3)
	Satisfaction with other people relationships	Five-Facet Mindfulness Questionnaire (FFMQ, POM-39), adaptation of V. Kachyna, Ya. Kaplunenko [44]
	Acting with awareness	
Non-judging of inner experience		
Social	Non-reactivity to inner experience	The mental health continuum-short form (MHC-SF-UA), adaptation of E. Nosenko, A. Chetveryk-Burchak
	Psychological well-being	
	Social well-being	
	Social acceptance	Social well-being scale (C.L.M. Keyes, adaptation of A. Chetveryk-Burchak)
	Social actualization	
	Social coherence	
	Social contribution	
	Social integration	

**Table 2.**

*The main empirical indicators of various forms of well-being.*



Therefore, we used the Questionnaire on Positive and Negative Affects, based on the PANAS scales (Watson, Clark and Tellegen, adaptation of M. Klimanska, I. Haletska), to diagnose the ratio of positive and negative emotions. The Ukrainian-language adaptation of this methodology, which was carried out in 2020, has demonstrated high Cronbach's alpha values for the "during the past few weeks" instruction. The researchers obtained such results: 0.89 for positive affect (PA) and 0.88 for negative affect (NA). The "test-retest" reliability was 0.7 for PA and 0.48 for NA [43].

In accordance with E. Diner's approach, O. Kaliuk and O. Savchenko developed the methodology "Cognitive features of subjective well-being" (KOSB-3). It includes 20 statements forming three scales: "Satisfaction with personal life," "Dissatisfaction with oneself and frustration in life," and "Satisfaction with other people relationships." In addition, the General level of satisfaction indicator was introduced and standardized on a sample of 256 persons of young age (18–25 years old). Stanine score was used for standardization. The scales of the methodology have showed high reliability-consistency and high reliability-stability over time. Thus, the "Satisfaction with personal life" scale demonstrated 0.78 according to Cronbach's alpha index and 0.78 ( $p < 0.001$ ) according to "test-retest"; "Dissatisfaction with oneself and frustration in life" – 0.74 and 0.61 ( $p < 0.001$ ) respectively; "Satisfaction with other people relationships" – 0.77 and 0.70 ( $p < 0.001$ ). The indicator of overall level of satisfaction has a value of 0.70 according to Cronbach's alpha index, which corresponds to a high level of reliability-consistency, and 0.79 ( $p < 0.001$ ) according to the "test-retest" index, which corresponds to a high level of reliability-stability over time [41].

"The mental health continuum-short form (MHC-SF-UA)" (C. Keyes, adapted by E. Nosenko, A. Chetveryk-Burchak) contains 15 traits, which are combined into three scales: "Hedonic well-being" (SWB), "Psychological well-being" and "Social well-being." However, in 2014, the authors validated and checked the reliability of only the general indicator. It was named "General indicator of health continuum." Adaptation was carried out on a sample of 163 people (18–35 years old). Cronbach's alpha index was 0.85, the "test-retest" index was 0.82 ( $p < 0.001$ ) [40]. The general indicator integrates all three forms of well-being, so we suggest it partially reflects the level of global well-being.

The "Ryff Scales of psychological well-being" methodology is considered the leading technique of researching psychological well-being throughout the world. However, the Ukrainian-language version, which has passed all the stages of adaptation, validation and standardization, is missing. Hence, we were forced to look for others and indicators that reflected certain aspects of this form of well-being. We used the "Five-Facet Mindfulness Questionnaire (FFMQ)" (R. Bayer, adaptation of V. Kuchyna, Ya. Kaplunenko). The ability to analyze and accept one's experience is related to the abilities of reducing stress, overcoming symptoms of anxiety, depression, burnout and other psychological difficulties [44]. Therefore, we consider indicators of inner experience awareness as important indicators of mental health and well-being. The Ukrainian version demonstrated high reliability and validity indices in all respects. Cronbach's alpha indices have such values: "Observation" - 0.94; "Description" - 0.93; "Conscious action" - 0.91; "Non-judgment of inner experience" - 0.84; "Non-reactivity to inner experience" - 0.91, integral index - 0.94. In our study, we used the data according to three scales that, in our opinion, most correspond to the indicators of psychological well-being, namely: "Conscious action," "Non-judgment of inner experience," "Non-reactivity to inner experience."

We used the "Social Well-Being Scale" (C. Keyes, adapted by A. Chetveryk-Burchak) to determine indicators of social well-being. The scales of the methodology correspond to the five structural factors of social well-being proposed by C. Keyes.

These are social acceptance, social actualization, social contribution, social coherence and social integration. The Ukrainian-language version of the methodology passed all stages of adaptation, demonstrated high values according to Cronbach's alpha (reliability-stability) and "test-retest" (reliability-stability) indices. So, the researchers who adapted the methodology received the following data: "Social acceptance" - 0.79 (Cronbach's alpha) and 0.59 ("test-retest"), "Social actualization" - 0.93 and 0.63 (respectively), "Social contribution" - 0.63 and 0.70, "Social coherence" - 0.90 and 0.67, "Social integration" - 0.69 and 0.56 [42]. The indicator of the general level of social well-being also has a high level of reliability-consistency and reliability-stability. These values are equal to 0.84 and 0.75 ( $p < 0.001$ ), respectively. The questionnaire contains 15 statements, each subscale includes 3 of them.

Thus, the subjects at the first stage of the study filled out six questionnaires based on self-assessment of their experiences, abilities and skills.

#### 4. Personal resourcefulness as a factor of the high well-being of the personality

Results of testing the first hypothesis (H1).

Now we are going to demonstrate that the "Personal Resources" questionnaire (O. Savchenko, S. Sukach) can be used to solve various research problems and to verify certain assumptions. Let us start with the hypothesis that the level of resourcefulness is an important factor in experiencing well-being, in its various forms.

We used a one-way analysis of variance (ANOVA) procedure to test hypotheses regarding the relationships between the level of resourcefulness and the experience of various forms of well-being. We also applied the procedure of correlation analysis according to the Pearson's coefficient to identify the direction of relationship: positive (the two variables deviate in the same direction) or negative (in the opposite directions). The results are shown in **Table 3**.

The form of well-being	Indicator of well-being	MS model <sup>1</sup>	MS residual <sup>2</sup>	F-statistics <sup>3</sup>	p <sup>4</sup>	r <sup>5</sup>
Global	The mental health continuum	1232.3	115.9	10.63	0.000	0.58
	Overall level of satisfaction	1090.3	57.68	18.90	0.000	0.66
	General indicator of social well-being	1523.8	122.29	12.5	0.000	0.55
Subjective	Positive affect	914.8	29.12	31.41	0.000	0.75
	Negative affect	360.8	46.08	7.83	0.001	-0.38
	Negative depression	205.9	23.61	8.72	0.000	-0.43
	Negative activation	24.03	8.22	2.92	0.061	-0.15
	Hedonic well-being	75.2	9.34	8.05	0.001	0.58
	General satisfaction with personal life	523.3	23.52	22.25	0.000	0.67
	Dissatisfaction with oneself and frustration in life	5.67	12.62	0.44	0.640	-0.12
Satisfaction with other people relationships	144.1	16.13	8.93	0.000	0.56	

The form of well-being	Indicator of well-being	MS model <sup>1</sup>	MS residual <sup>2</sup>	F-statistics <sup>3</sup>	p <sup>4</sup>	r <sup>5</sup>
Psychological	Acting with awareness	209.9	24.15	8.68	0.000	0.44
	Non-judging	266.6	37.88	7.04	0.001	0.44
	Non-reactivity	55.7	9.26	6.02	0.003	0.39
	Psychological well-being	352.4	21.26	16.57	0.000	0.61
Social	Social well-being	66.44	21.34	3.11	0.051	0.40
	Social acceptance	15.5	9.02	1.72	0.187	0.27
	Social actualization	60.1	10.58	5.68	0.005	0.43
	Social coherence	98.4	9.82	10.02	0.000	0.46
	Social contribution	116.9	11.63	10.05	0.000	0.49
	Social integration	45.1	6.63	6.79	0.002	0.45

<sup>1</sup>MS model - "average" sum of squares for the Factor.

<sup>2</sup>MS residual- "average" sum of squares for the Error.

<sup>3</sup>F-statistics – a result of F-test in one-way analysis ANOVA.

<sup>4</sup>p – the significance level.

<sup>5</sup>r – the Pearson's correlation coefficient.

**Table 3.**

*The results of a one-way analysis variance on the indicator of resourcefulness.*

## 5. Discussion of the results of testing hypothesis H1

It was found that the level of resourcefulness is a factor of the intensity of positive ( $F = 31.41$ ;  $p < 0.000$ ) and negative ( $F = 7.86$ ;  $p < 0.001$ ) emotions of the individual. As we can see, the influence on positive emotions is more significant; therefore, individuals who are aware of the possibility of quickly mobilizing their psychological resources in case of difficulties fell positive emotions (interested, excited, enthusiastic, etc.) more intensely and negative emotions less intensely (depressed, upset, hostile, etc.). In particular, the level of resourcefulness is a factor of the level of emotions belonging to the "Negative depression" category (depressed, upset, guilty, scared, ashamed, jittery and afraid). We note that the Ukrainian variant of the PANAS questionnaire has a three-factor structure, which combines one factor corresponding to positive experiences and two factors of negative affect ("Negative depression" and "Negative activation"). The level of resourcefulness is only a factor of the level of experiencing a depressed state and has no significant relationship with the state of intense, activating negative emotions (hostile, irritable and nervous).

The level of resourcefulness is a factor on both the hedonic well-being ( $F = 8.05$ ;  $p < 0.001$ ) and the overall level of personal satisfaction ( $F = 18.90$ ;  $p < 0.000$ ). People with high resourcefulness often experience happiness, satisfaction and interest in life. The higher person with more vitality evaluates their ability to mobilize resources, the higher one evaluates their achievements in comparison with the results of other people and the more positively one perceives the circumstances of their life and values their relationships with other people. It is interesting to note that the level of resourcefulness is a factor on two of the three indicators that were measured using the "KOSB-3" questionnaire, namely: "General satisfaction with personal life" ( $F = 22.25$ ;  $p < 0.000$ ) and "Satisfaction with other people relationships" ( $F = 8.93$ ;  $p < 0.000$ ). The level of the "Dissatisfaction with oneself and frustration in life" indicator is not

related to the ability to mobilize and restore one's own resources. This gives us reason to assume that the experience of frustration, like other activating negative experiences, can also arise in the background of emotional exhaustion and personal devastation as a secondary reaction to one's inability to control the situation and regulate one's condition. It can be considered as an additional factor of self-energization, in addition to the mobilization of resources. If mobilization is based on the volitional mechanism of strengthening intentions and suppression of competing intentions, then this additional mechanism allows to increase the level of self-activation due to the strengthening of negative affects. This mechanism of activation of the personal state was described in the theory of "Arousal Potential," where the arousal level was dependent on a combination of collative variables, affective stimuli, strong external stimuli and the state of need [45]. Moreover, the highest level of activation is achieved precisely when strong negative emotions arise. M. Holodnaya [46], researching the regulative mechanisms of intellectual activity, proved that sensory components of cognitive structures could function as regulators of energy potential. Their absence or excessive expression negatively affects the personal intellectual activity. On the other hand, self-dissatisfaction can be based on deep personal beliefs, on a low level of self-esteem and self-respect, which does not depend on the context, but functions as a permanent emotional background. It is interesting to note that there is a relationship between body dissatisfaction and intrapersonal resources (self-esteem and personal growth initiative) and interpersonal resources (gratitude and social support) [47].

People with a high level of resourcefulness have a higher psychological well-being ( $F = 10.63$ ;  $p < 0.000$ ), they are better aware of their life, they wonder more often about the strategies and tactics of behavior, which allows them to avoid automatic reactions in complex, meaningful situations ( $F = 8.68$ ;  $p < 0.000$ ). The presence of psychological resources is an important condition for choosing a non-judgemental position with respect to various aspects of one's inner life ( $F = 7.04$ ;  $p < 0.001$ ), which involves both avoidance of evaluation and opportunities for manifesting of negative experiences. It also creates an opportunity for the individual to keep the distance and not get stuck in negative emotional states, not to be completely engaged in experience ( $F = 6.02$ ;  $p < 0.003$ ). S.E. Hobfoll noted that without adequate resources, people will use "loss-control strategies that have a high cost and poor chance of success" [21].

In addition, we can state that the level of resourcefulness is a factor in almost all aspects of social well-being. An exception is "social acceptance" ( $p = 0.187$ ) as a social challenge, a dimension of social wellness. The level of resourcefulness is not related to how individuals evaluate other persons, how willing they are to maintain a complex image of others, which combines both positive and negative characteristics of them, how willing they are to trust others. It was established that the level of psychological resources is a factor in the assessment of the quality of relations with society ( $F = 6.79$ ;  $p < 0.002$ ), one's own social value ( $F = 10.05$ ;  $p < 0.000$ ), prospects for the society development and the power of its potential ( $F = 5.68$ ;  $p < 0.005$ ), capacity to make sense of life ( $F = 10.02$ ;  $p < 0.000$ ). Individuals who feel power in themselves and have sufficient resources evaluate their effectiveness and responsibility more highly.

## **6. Types of person's resourcefulness**

Results of testing the second hypothesis (H2).

We used clustering analysis (tree clustering) to test the second and third hypothesis (H<sub>2</sub>-H<sub>3</sub>). We performed clustering using the data obtained from the "Personal



Indicator	Md 1 <sup>1</sup>	Md 2 <sup>2</sup>	U-test Mann-Whitney	p
Subgroup 1 (N = 14) and Subgroup 5 (N = 7)				
Sufficiency of resources	15.0	11.0	4.0	0.000
Restoring resources strategies	16.5	12.0	0	0.000
Emotional exhaustion	11.5	13.0	9.5	0.002
General level of personal resource fullness	22.5	10.0	0	0.000
Subgroup 1 (N = 14) and Subgroup 2 (N = 18)				
Restoring resources strategies	16.5	14.0	8.5	0.000
Emotional exhaustion	11.5	10.0	67.0	0.022
Subgroup 1 (N = 14) and Subgroup 3 (N = 16)				
Sufficiency of resources	15.0	23.0	0	0.000
Emotional exhaustion	11.5	9.0	44.0	0.000
General level of personal resource fullness	22.5	31.0	0	0.004
Subgroup 2 (N = 18) and Subgroup 5 (N = 7)				
Sufficiency of resources	17.0	11.0	4.0	0.000
Emotional exhaustion	10.0	13.0	1.0	0.000
General level of personal resource fullness	21.5	10.0	0.5	0.000
Subgroup 3 (N = 16) and Subgroup 4 (N = 14)				
Sufficiency of resources	23.0	20.0	22.0	0.000
Emotional exhaustion	9.0	7.0	55.0	0.017

<sup>1</sup>Md 1– median in first subgroup.  
<sup>2</sup>Md 2 - median in second subgroup.

**Table 4.**  
*Types of persons with different resourcefulness.*

resources” questionnaire (O. Savchenko, S. Sukach). The procedure of plotting trees allowed us to separate five subgroups of the subjects, corresponding to five types of resourcefulness. The first subgroup included 14 persons (20.3% of the total sample), the second – 18 persons (26.1%), the third – 16 persons (23.2%), the fourth – 14 persons (20.3%), the fifth – 7 persons (10.1%). **Table 4** shows the results of the comparison of these five subgroups on indicators of resourcefulness. Mann-Whitney U-test was used to compare subgroups results.

## 7. Discussion of the results of testing hypothesis H2

The most prosperous state is observed in persons of the third subgroup. Individuals of this type, which was called “high resourcefulness,” have relatively high values on the indicators “Sufficiency of resources” (Md = 23.0), “Restoring resource strategies” (Md = 18.5), “General level of personal resourcefulness” (Md = 31.0) and low values on the indicator “Emotional exhaustion” (Md = 9.0). These individuals can quite easily increase their psychological resources in an unexpected situation by mobilizing additional efforts [23]. Compared to the results of this subgroup, the individuals

who formed the first subgroup have significantly lower results on the indicators “Sufficiency of resources” ( $U = 0$ ;  $p < 0.000$ ), “General level of personal resourcefulness” ( $U = 0$ ;  $p < 0.000$ ) and higher values on the indicator “Emotional exhaustion” ( $U = 44.0$ ;  $p < 0.004$ ). There were no differences on “Restoring resource strategies” scale, so individuals of the first subgroup apply recovery strategies after stress quite actively, but this does not help them to normalize their emotional state, to experience themselves as full of resources, assess their condition as sufficient to overcome life’s difficulties. This type of personality has been called “ineffective use of strategies.” According to the fourth corollary from COR theory’s basic principles, people with low psychological resources can take a defensive posture to guard their resources, and they can use ineffective strategies to replenish resources (e.g., denial coping strategy). These means may help preserve some resources in the short term but will bring more negative consequences, as individuals do not understand the situation and the means of overcoming it and are insensitive to the distress escalation [23].

The highest values on the indicator “Emotional exhaustion” were obtained by persons who formed the fifth subgroup. Since the subjects of this subgroup have all other indicators lower, in comparison with all subgroups, especially with the third, second and first, this type of personality was called “high emotional exhaustion.” Such individuals underestimate their resources and ability to mobilize them ( $Md = 11.0$ ), do not use strategies to improve their condition, and restore themselves after stress ( $Md = 12.0$ ); as a result, they have the relatively lowest level of resourcefulness ( $Md = 10.0$ ). Such individuals, according to the first corollary from COR theory’s basic principles [23], are more vulnerable to the loss of resources than those individuals who assess the level of their psychological resources as sufficient. Moreover, such persons are less adept at restoring and increasing resources. It is much more difficult for them to mobilize additional resources in a situation of resource shortage.

Students who are part of the fourth subgroup have a lower level of the indicator “Sufficiency of resources” ( $U = 22.0$ ;  $p < 0.000$ ), when comparing their results with the outcomes of the third subgroup, and at the same time, lower values on the indicator “Emotional exhaustion” ( $U = 55.0$ ;  $p < 0.017$ ). These data indicate that these individuals do not experience a lack of resources, and at the same time, they do not value their available resources highly. They do not experience fatigue and loss of control over events in a stressful situation. Perhaps we are talking about stress resistance, when a person does not focus their attention on losses, but focuses more on their acquisition, and advantages. Such individuals do not fall into a resource caravan situation, where the scarcity of resources motivates the individual to add them, and this is even more exhausting and devastating because it does not bring the desired task rewards. This type was called “high-stress resistance.”

The last type corresponds to the characteristics of persons who formed the second subgroup. Comparing their results with the data of individuals from the first subgroup, who demonstrate “ineffective use of strategies,” these students have lower values on the indicator “Restoring resource strategies” ( $U = 8.5$ ;  $p < 0.000$ ) and “Emotional exhaustion” ( $U = 67.0$ ;  $p < 0.022$ ). Therefore, despite the fact that the subjects of this subgroup do not experience a lack of resources and emotional exhaustion, they do not try to invest their mental energy in the search for and recovery of resources in order to enrich their pool of resources. Their behavior does not correspond to the second principle of COR theory, namely, “people must invest resources to protect against resource loss, recover from losses, and gain resources” [22]. Such a personal position, which does not orient individuals to the acquisition of resources,

investing efforts in increasing the resource potential, goes up their vulnerability to stressful factors. It happens because this type of personality chooses a style of self-protection, avoidance in order to reduce the probability of losing resources [21]. Also, it can be assumed that individuals who belong to the type “passivity in the search for resources” experience less well-being.

## 8. Well-being of people with different type of resourcefulness

Results of testing the third hypothesis (H3).

We used the Kruskal–Wallis test and the Median test to back up our assumption that individuals with different types of resourcefulness experience well-being differently. The results are presented in **Table 5**.

The form of well-being	Indicator	H <sup>1</sup>	p	Chi-Square <sup>2</sup>	p
Global	The mental health continuum	15.97	0.003	15.28	0.004
	Overall level of satisfaction	23.38	0.000	17.37	0.002
	General indicator of social well-being	17.58	0.002	10.99	0.027
Subjective	Positive affect	37.15	0.000	28.62	0.000
	Negative affect	17.47	0.002	15.31	0.004
	Negative depression	18.34	0.001	14.35	0.006
	Negative activation	9.58	0.048	10.18	0.037
	Hedonic well-being	16.95	0.002	14.86	0.005
	General satisfaction with personal life	20.47	0.000	10.40	0.034
	Dissatisfaction with oneself and frustration in life	5.25	0.262	3.83	0.428
	Satisfaction with other people relationships	16.25	0.003	9.16	0.057
Psychological	Acting with awareness	8.86	0.065	7.41	0.116
	Non-judging	10.68	0.031	11.30	0.023
	Non-reactivity	8.10	0.088	6.05	0.195
	Psychological well-being	19.99	0.001	15.07	0.005
Social	Social well-being	8.38	0.079	7.82	0.10
	Social acceptance	8.89	0.064	4.99	0.29
	Social actualization	6.97	0.137	9.53	0.049
	Social coherence	14.11	0.007	7.50	0.112
	Social contribution	13.43	0.009	8.41	0.078
	Social integration	13.92	0.008	8.41	0.078

<sup>1</sup>H – the result of Kruskal–Wallis test.

<sup>2</sup>Chi-square – the result of Median test.

**Table 5.**  
*Kruskal-Wallis test and median test results.*

## 9. Discussion of the results of testing hypothesis H3

We can state that the groups differ in three indicators of global well-being, namely, general indicator of mental health continuum ( $H = 15.97$ ;  $p < 0.003$ ), overall level of satisfaction, which reflects satisfaction with one's life, oneself, relationships ( $H = 23.38$ ;  $p < 0.000$ ), general indicator of social well-being, which integrates different aspects of wellness in society ( $H = 17.58$ ;  $p < 0.002$ ). It should be noted that groups with different types of personal resourcefulness differ significantly in the experience of subjective well-being, which is manifested in the predominance of positive emotional background ( $H = 31.15$ ;  $p < 0.000$ ) over negative emotional experiences ( $H = 17.47$ ;  $p < 0.002$ ). We also note that students experience psychological ( $H = 19.99$ ;  $p < 0.001$ ) and hedonic ( $H = 16.95$ ;  $p < 0.002$ ) well-being in different ways depending on the type of resourcefulness. Psychological well-being manifests itself in a non-judgemental attitude towards the events of the inner world ( $H = 10.68$ ;  $p < 0.031$ ), which allows an individual to maintain emotional balance: not to immerse themselves too much in certain experiences and not to ignore negative feelings and thoughts. We would like to remark that we received a lot of conflicting data from the two tests regarding indicators of social well-being, which does not allow us to talk about a significant influence of the type of resourcefulness.

We obtained more detailed information about each type of resourcefulness in a comparative analysis using the non-parametric Mann–Whitney U-test.

**Table 6** includes a brief description of each type of resourcefulness.

Type	Number of people	Percentage	Brief description
High resourcefulness	16	23.2	Relatively high indicators of all forms of well-being. Individuals can have a pronounced dissatisfaction with themselves and frustration in life.
High stress resistance	14	20.3	Relatively high indicators of all forms of well-being. Individuals can regulate their emotional state by reducing the experience of negative emotions (especially high-energy emotions). They may have relatively low social coherence.
Ineffective use of strategies	14	20.3	Intermediate position on the indicators of subjective, psychological and social well-being. Individuals feel insufficient amount of positive emotions.
Passivity in the search for resources	18	26.1	Intermediate position on the indicators of subjective, psychological and social well-being. Individuals experience dissatisfaction with other people relationships.
High emotional exhaustion	7	10.1	Relatively low indicators of all forms of well-being. In the emotional sphere of these persons, negative emotions prevail over positive ones; especially the emotions of the depressive spectrum dominate. Individuals take a judgemental position in relation to the events of their inner world; have problems with experiencing social coherence and integration.

**Table 6.**  
 Characteristics of different types of personal resourcefulness.



Indicator	Average (September 2022)	Average (December 2022)	Variance (September 2022)	Variance (December 2022)	Student's t-test	p
Sufficiency of resources	18.06	16.92	20.97	21.11	1.84	0.072
Restoring resources strategies	15.65	15.14	7.35	9.48	1.30	0.20
Emotional exhaustion	9.67	10.47	5.83	4.77	2.51	0.015
General level of personal resourcefulness	24.04	21.59	56.84	57.25	2.41	0.019

**Table 7.**

*Transformation of indicators of Ukrainian students' resourcefulness in a long-term stressful situation (war on the territory of Ukraine).*

## 10. Transformation of personal resourcefulness under the influence of chronic stress

Results of testing the fourth hypothesis (H4).

We used a comparative analysis (a descriptive design) due to test the last fourth hypothesis (H<sub>4</sub>) regarding the decrease in the level of personal resourcefulness in a prolonged stressful situation. At this stage, 51 students took part and completed two surveys at an interval of 3 months. We carried out the first measurement in September 2022, 6 months after the start of a full-scale war on the territory of Ukraine. Some of these students, namely 43 persons (84.3%), were in the territory of Ukraine at the time of the survey, and eight persons (15.7%) found temporary protection in the territory of European countries. The second measurement was carried out at the beginning of December 2022 (after 9 months of war). We used Student's t-test for dependent samples. The results of the comparative analysis are shown in **Table 7**.

## 11. Discussion of the results of testing hypothesis H4

We can state a decrease in students' resourcefulness ( $t = 2.41$ ;  $p < 0.019$ ) due to a slight decrease in the number of psychological resources ( $p = 0.07$ ) that are available for mobilization, and a significant increase in the level of emotional exhaustion ( $t = 2.51$ ;  $p < 0.015$ ). No differences were found in the frequency of use of resource restoration strategies ( $p = 0.2$ ), which suggests that young people did not start using means to improve their condition more often. A prolonged stressful situation did not force them to replenish their own resources consciously by using a certain strategy. We got a contradictory picture: on the one hand, students assessed their existing resources as sufficient, that they are able to mobilize them in case of a worsening situation, and on the other hand, they feel emotional exhaustion, which is an indicator of a lack of resources. It can be explained by the fact that in the sample, 17.39% of people had a high level on the "Sufficiency of resources" indicator, despite 7.25% of

people with a low level. We should also note that 15.94% of subjects had a high level of the general indicator of personal resourcefulness, and only 8.70% had low values. Therefore, we can say that after 6 months of the war, the students still felt their ability to mobilize resources. Only 10% of respondents demonstrated a high level of emotional exhaustion. People who highly value their potential resources are less sensitive to traumatization and more easily survive stressful situations [23]. Those who have fewer resources and find it difficult to overcome stressful situations are less able to increase their resource pool [22]. In addition, experiencing loss of power, lack of resources generates “loss spirals”: resources are invested to restore their level, but this does not improve the situation, a person feels an even greater loss of important resources. “When resources are insufficient to begin with, resource investment may be enough to put a person over the edge, resulting in further losses” [23]. Here the question arises why individuals do not increase their strategic potential, why they do not apply strategies for restoring resources. We consider two prospective answers. First, it is possible that a high starting level of “sufficiency of resources” creates the “illusion of invulnerability.” Individuals do not feel the need to seek out and learn new strategies. They are full of confidence that they will overcome the situation on their own; they are able to control their behavior and the development of events. The metacognitive experience of confidence strongly affects people’s judgements and blocks certain cognitive functions (gathering additional data, checking information, checking ideas about reality, etc.) [48]. Secondly, the state of resource scarcity strongly narrows the behavioral repertoire of individuals and facilitates the simplification of response forms. More often than not, individuals with few resources take a defensive position in an attempt to conserve limited resources. They choose a strategy of storage rather than recovery or the search for new resources. They “decrease engagement with the broader environmental context, including potential access to other valued resources” [23].

## **12. Conclusion**

Therefore, we have proposed the author’s model of personal resourcefulness as a metacognitive experience of available psychological resources, which includes a sense of the total amount of resources and mental energy, awareness of one’s ability to mobilize, replenish and restore resources and knowledge of strategies for doing it. It was established that the general level of personal resourcefulness is a significant factor in all forms of well-being that were analyzed in the study (subjective, psychological, social and global).

According to the indicators of personal resourcefulness, we distinguished five types, namely: “high resourcefulness,” “high-stress resistance,” “inefficient use of strategies,” “passivity in the search for resources,” and “high emotional exhaustion.” It was established that the highest indicators of various forms of well-being have individuals who belong to the types “high resourcefulness” and “high stress resistance.” Individuals who belong to the type of “high emotional exhaustion” have the lowest level of well-being. Against the background of prolonged chronic stress, caused by a full-scale war on the territory of Ukraine, we observe a significant decrease in the level of personal resourcefulness, as Ukrainian students experience an increase in emotional exhaustion, overestimate their psychological resources as sufficient to overcome the stressful situation and do not expand the strategic potential of restoring

resource. One of the research prospects is the development of the main variant of personal resourcefulness questionnaire, which will include the indicators of allocation, mobilization, replenishment and restoring of psychological resources. It is important for us to present the functioning of resourcefulness as a complex experience at three levels (cognitive and metacognitive and personal) to take into account indicators of the presence, sufficiency and availability of psychological resources.

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