

Resources of subjective well-being of the person in the conditions of uncertainty (on the example of COVID-19 quarantine)

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Annotation. This article presents a theoretical justification and empirical confirmation of the hypothesis that certain personal dispositions can be the sources of subjective well-being in conditions of life uncertainty (like strict quarantine measures). The aim is to elucidate the mechanism of how the resources of subjective well-being function in the conditions of life uncertainty. According to the results a sense of connectedness and self-confidence are important for a person's subjective well-being in the face of life uncertainty. Vitality and tolerance for uncertainty in real conditions of uncertainty do not play a role of a primary source.

Keywords: *subjective well-being, personal dispositions, sources, sense of connectedness, self-confidence.*

Introduction. A tendency to study the problems of well-being, health and full functioning of a person characterizes modern psychological science. Currently, psychology has accumulated a large empirical and theoretical basis for the study of psychological and subjective well-being. There are two theoretical approaches to the study well-being: hedonistic and eudemonistic, that are often combined in a single concept of the idea of subjective and psychological well-being (K. Ryff, A.V. Voronina, N.V. Grankina-Sazonova, H.V. Pavlenko, T.P. Fesenko, T.D. Shevelenkova and others). Views on the determinants of individual well-being are also expanding. Thus, the belief that well-being is determined by social (external) factors, such as economic stability, political certainty, social security, support from others, recedes into the background and is supplemented by new research findings. The authors [1], [5], [9] argue that the impact of external events and objective living conditions on individual well-being is not as great as the impact of internal personality dispositions that mediate environmental factors and act as the sources of well-being. Among the personal resources, researchers have identified: vitality (S. Kobasa, S. Maddi), dispositional optimism (C. S. Carver, M. F. Scheier), self-efficacy (R. Schwarzer), the presence of meaning in life and values (N. E. Vodopyanova, L. G. Dyka), meaningfulness of life (D. O. Leontiev), sense of connectedness (A. Antonovsky), subjective vitality (K. Frederick, R. Ryan), self-trust (I.V. Kryazh, N. V. Grankina-Sazonova) basic beliefs (R. Yanov-Bulman) etc. These dispositions can withstand the many challenges and stresses of the world around them, as well as maintain the well-being of the individual in conjunction with social resources and resources from the environment. In other words, personal resources act as an integral characteristic that provides individuals with the opportunity to overcome difficult and uncertain life situations. Despite the active research work on the study of personal well-being and its resources, insufficient attention is paid to the study of the problem of uncertainty and its impact on individual well-being.

Today's reality is characterized by a certain level of uncertainty about the environment and one's own future, which is due to the COVID-19 pandemic quarantine measures. Uncertainty of the future is often experienced negatively and causes stress [3], [4], reduced quality of relationships with others, loss of subjective well-being and negatively affects the health of the individual [11]. Recent

foreign studies [2] have shown that stress occurs when a person is sensitive to external stimuli and has insufficient resources to transform the negative effects of the environment or change it. Therefore, it should be noted that the main factor determining the quality of life and well-being is not the conditions of the living environment, but the individual and his position in relation to life, to himself, to the possibility of mobilizing their own resources [13], [15, p. 790]. This raises the question of exploring the resources of well-being and studying the mechanisms of their functioning in the face of uncertainty in life. The sources include resilience, a sense of connectedness, tolerance for uncertainty, and self-confidence. The article highlights the theoretical justification and empirical testing of the hypothesis that certain personal dispositions can act as sources of subjective well-being in conditions of uncertainty in life and mediate the impact of uncertainty of life on the subjective well-being of the individual.

The purpose of the study is to elucidate the mechanism of functioning of resources of subjective well-being in the conditions of uncertainty of life.

Material and Methods. The study involved 172 respondents aged 17 to 46 years, of whom 28 were male and 144 were female. The main research method is psychodiagnostic testing. Two methods were used to study well-being: G. Perrudet-Badoux's «Subjective Well-Being Scale», adapted by M.V. Sokolova and E. Diener's «Life Satisfaction Scale», adapted by D.O. Leontiev. The following methods were used to study personal resources: «Test of viability» by S. Maddi, adapted by D.O. Leontiev and O.I. Rasskazova, modification of E.M. Osin and O.I. Rasskazova; «Scale of sense of connection» by A. Antonovsky, translated by M.N. Dimshitsa, modification of E.M. Osin; «A new questionnaire of tolerance - intolerance towards uncertainty» T. V. Kornilova; «Reflexive self-confidence questionnaire» by T.P. Skrypina. The author's graphic scale «Subjective definition of spheres of life» was used for subjective assessment of the degree of certainty in significant spheres of life. Mathematical data processing was performed using StatSoft and included regression analysis and modeling of structural equations.

Results and their discussion. To test the assumption of the positive impact of certain personal dispositions on subjective well-being in conditions of life uncertainty, a multiple regression analysis was performed using the Forward Stepwise method. Regression models were modeled

on the general sample, as no significant difference in the weight of indicators in the subgroups was found.

For two indicators of well-being «Subjective well-being» and «Life satisfaction», the probability of their explanation by the following personal dispositions was considered: vitality, sense of connection, self-confidence, tolerance and intolerance of uncertainty. The results of the regression model are shown below in Table 1.

Table 1. Regression analysis of predictors of well-being

Variable predictors	Subjective well-being		Life satisfaction	
	β	RI and RIadj	β	RI and RIadj
Apprehensibility	-0,27	RI 0,67 RIadj 0,66		RI 0,49 RIadj 0,48
Controllability	-0,53		0,41	
Self-trust	-0,16*		0,19*	

Indicators are significant at $p < 0.0001$, except * $p < 0.01$

The regression model of well-being includes two components of a sense of connectedness (comprehensibility and controllability) and self-confidence. Regression analysis showed that the components of a sense of connectedness well determine the subjective well-being of the individual. Self-confidence, which is included in the model, also increases the percentage of determination of the well-being model of respondents who find themselves in real conditions of uncertainty. The components of viability, tolerance and intolerance towards uncertainty are not included in the model. Thus, the general orientation of the individual, associated with an adequate assessment of their capabilities, perception of the world around them as one who can understand and find meaning, as well as self-trust, self-confidence allows you to live on an emotional level of uncertainty and maintain state of subjective well-being.

Table 2. Regression analysis of viability and tolerance to uncertainty as predictors of well-being

Variable predictors	Subjective well-being		Life satisfaction	
	β	RI and RIadj	β	RI and RIadj
Involvement		RI 0,14 RIadj 0,13	0,28*	RI 0,15 RIadj 0,13
Tolerance for Uncertainty	-0,33		0,22	

Indicators are significant at $p < 0.0001$, except * $p < 0.01$

Given that in previous studies between the indicators of well-being and vitality [12], as well as tolerance to uncertainty [10] were found statistically significant

correlation connections, separate models were built for well-being with vitality and tolerance to uncertainty as the predictors (see Table 2).

The figures in Table 2 show the impact of the «Involvement» component and the tolerance for uncertainty on the subjective well-being of the individual, but it should be noted that the percentage of determination is small and indicates the need for additional assistants. It should be noted that with different combinations of dispositions, the component of vitality «Control» is not included in the model. Thus, when the components of vitality and the sense of coherence are connected at the same time, the component «Control» of vitality has no influence in the model. However, the «Involvement» component and a sense of connectedness have high ability factors and describe the model by more than 50% (see Table 3).

Table 3. Regression analysis of vitality and sense of connectedness as predictors of well-being

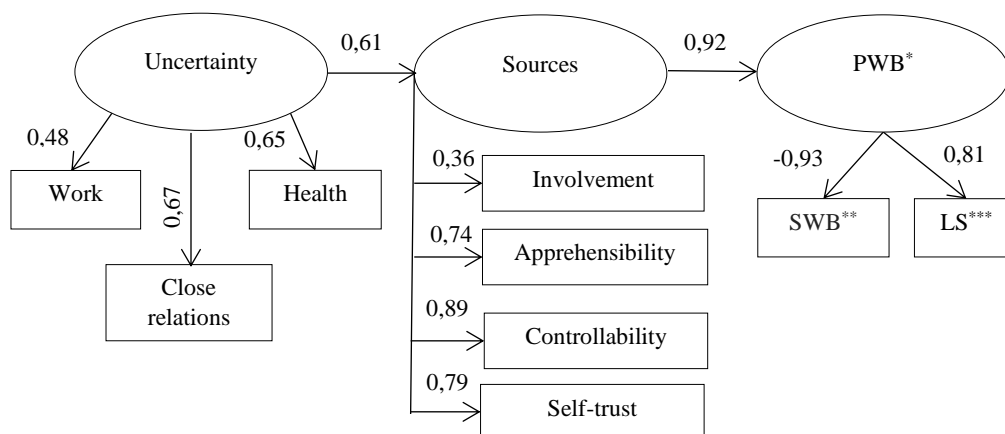
Variable predictors	Subjective well-being		Life satisfaction	
	β	RI and RIadj	β	RI and RIadj
Involvement	0,11**	RI 0,66 RIadj 0,66		RI 0,48 RIadj 0,47
Apprehensibility	-0,30		0,20*	
Controllability	-0,62		0,53	

Indicators are significant at $p < 0.0001$, except * $p < 0.01$

Despite the fact that involvement is included in the regression model of well-being during the quarantine, its indicators are much worse in contrast to the indicators of self-confidence, which were included in a similar model (see Table 1). When a sense of coherence and tolerance for uncertainty are combined into a single model, the latter is excluded from the model, and indicators of a sense of coherence determine the model by more than 50%. When connected to a sense of self-confidence, the regression model has the highest rates of suitability and significance (see Table 1).

Next, three structural models built with help scientific advisor I.V.Kryazh in the group of respondents «During quarantine» are highlighted and interpreted. The relationships of the structural models are at a statistically significant level and have high suitability.

The first structural model has good suitability indicators: $p = 0.003$, RMSEA 0.071, GFI 0.943, AGFI 0.897, CFI 0.966 and is shown in the figure below (see Figure 1).



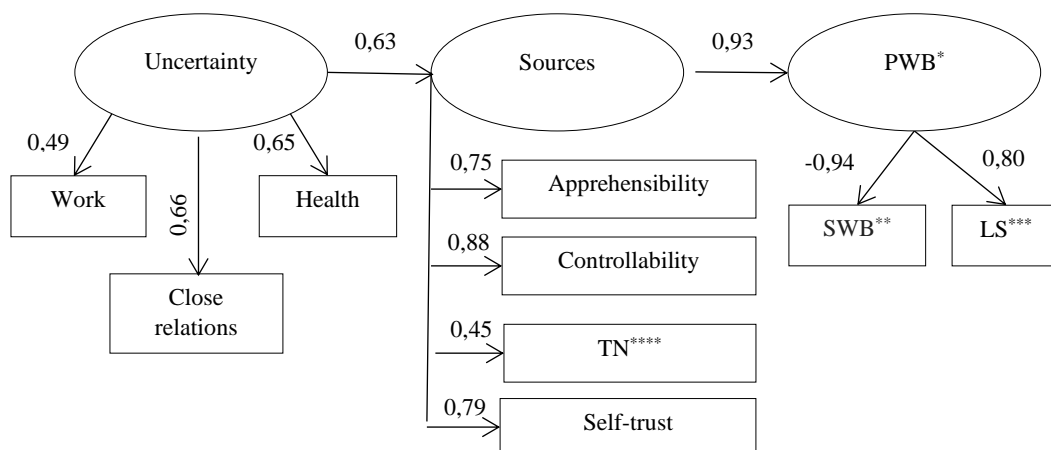
*PWB – psychological well-being; **SWB – Subjective well-being; *** LS – life satisfaction

Figure 1. Structural model describing the links among life uncertainty, psychological well-being and sources (components of vitality and a sense of connectedness and self-confidence)

This model shows that in conditions of uncertainty, the sources of psychological well-being can be involvement, understanding, manageability and self-confidence. The sources act as a mediator between uncertainty in important areas of life and the psychological well-being of the individual, thereby reducing the risk of declining well-being in situations of uncertainty. The factor load of the component

of vitality «Involvement» is not great, but significant, namely rational analysis and involvement in what is happening around, in an uncertain situation is not the most important resource of the individual. The main number of helping elements to the individual are the sources that allow you to emotionally determine the situation, to understand it and their capabilities in the current environment.

Next, a second model is simulated (see Figure 2), which included tolerance for uncertainty, which, in theory, should support a person's ability to function properly and act adequately in conditions of insufficient information, namely uncertainty.

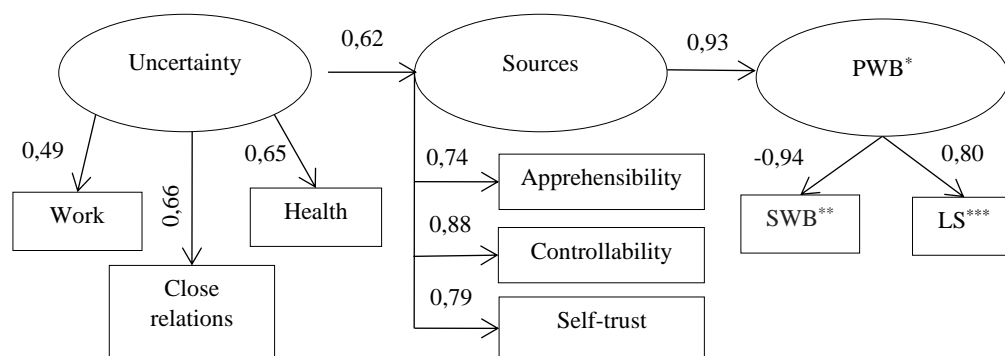


*PWB – psychological well-being; **SWB – Subjective well-being; *** LS – life satisfaction; **** Tolerance for Uncertainty

Figure 2. Structural model describing the links between life uncertainty, psychological well-being and resources (components of a sense of connectedness, tolerance for uncertainty and self-confidence)

The second structural model of the links between life uncertainty, personal resources and psychological well-being is similar to the first, but instead of involvement it includes tolerance to uncertainty and the model has slightly worse suitability: $p = 0.001$, RMSEA 0.079, GFI 0.937, AGFI 0.886, CFI 0.958. Thus, tolerance for uncertainty, in quarantine and similar situations, can be an additional resource to help maintain psychological well-being.

It should be noted that the components of viability do not work well in conditions of uncertainty. The «Control» component is completely excluded from mediators, and the Involvement component has a positive effect (see Figure 1), but is worse than tolerance for uncertainty (see Figure 2). Given this fact, a third structural model was further built without the inclusion of viability.



*PWB – psychological well-being; **SWB – Subjective well-being; *** LS – life satisfaction

Figure 3. Structural model that describes the links between life uncertainty, psychological well-being and sources (components of a sense of connectedness, and self-confidence)

The third structural model of the links between the uncertainties of life, personal resources and psychological well-being proved to be the most optimal resource model. It has the following indicators of suitability: $p = 0.026$, RMSEA 0.065, GFI 0.956, AGFI 0.913, CFI 0.980. The model shows that in the conditions of quarantine restrictions

and innovations, a set of resources helps to overcome uncertainty and maintain an adequate state of psychological well-being: a sense of connection and self-confidence.

Statistical analysis of the study data in general confirmed the hypothesis about the mediating role of personal dispositions between the uncertainty of life and the state of

subjective well-being. The results of regression analysis and structural modeling confirmed this assumption. After analyzing different variants of combining personal dispositions in regression models, it was found that the feeling of connectedness is the main predictor of subjective well-being of a person in real conditions of uncertainty. Self-confidence is also a helper in maintaining psychological well-being, but it is second only to a sense of connectedness in terms of impact. Sustainability is not involved in the resource model of well-being. Its separate component «Involvement» works in combination with tolerance for uncertainty and a sense of connection and has little effect on the subjective well-being of the individual. Models with viability are much less deterministic. Self-confidence helps with a sense of connectedness and adds a few percent determination to the model. Tolerance to uncertainty is practically not included in the model. Tolerance to uncertainty is practically not included in the model.

Structural modeling has demonstrated a resource mechanism to support subjective well-being in the face of uncertainty in life caused by quarantine restrictions. Sense of connectedness and self-confidence work well as resources in facing uncertainty. They are strong resources of the individual, which allow to maintain and maintain a state of subjective well-being in the difficult events of modern life, in particular, in quarantine. Therefore, it can be noted that in real conditions of uncertainty, in a quarantine situation, the resource role is performed by less reflected and less rational, but more emotionally colored sources.

Thus, in real conditions of uncertainty (during quarantine), the source role shifts to less rational attitudes of connectedness. The main thing is to live the situation through emotional thinking, precisely when there is no reason for rational optimism, the emotional confidence that the situation is understandable and own resources are sufficient to overcome it. Also, tolerance of uncertainty as a set of negative and positive psychological reactions – cognitive, emotional and behavioral – caused by new, uncertain events allows you to understand and accept ambiguous, changing situations in the world. Self-confidence, which gives a sense of support, also plays a resourceful role. Inner confidence, a sense of self-uniqueness helps to maintain a state of well-being and make the right decisions under any circumstances. Interesting is that vitality does not play the role of a well-being resource in this study. It should be noted that viability as a source of well-being in conditions of uncertainty in Ukrainian and Russian-language studies is being studied for

the first time. Given that vitality and a sense of connection is not limited to a set of stable human reactions to a stressful situation, but manifests itself more constantly, flexibly, depending on the currently available assistants, it should be assumed that in other living conditions vitality can act as a source (mediator), which will be able, for example, to reduce anxiety and thus maintain an adequate state of well-being.

The results on tolerance toward uncertainty were also unexpected. In works [6], [7], [8], [16] tolerance for uncertainty is considered as one of the key sources of the individual in overcoming stressful situations. Rogachev V.A. & Konopleva I.N. [14] considers tolerance towards uncertainty as a stabilizing factor that contributes to the adaptation of the individual to the effects of various stressful and uncertain situations. Empirical studies [14] have found no significant correlations between tolerance towards uncertainty and neuropsychological stability, which is also quite unusual, because neuropsychological stability ensures reliable human functioning in extreme and complex conditions. Thus, the seed of doubt about the construct of tolerance to uncertainty and its role in uncertain and difficult living conditions is sown. We consider it expedient to further comprehensively investigate tolerance to uncertainty and the mechanism of its functioning.

Conclusions. The conducted empirical research was based on theoretical views on the problem of individual well-being and its probable resources. The lack of empirical research on well-being in the uncertainty of life has led to our research. The hypothesis of the role of personal dispositions as a resource of subjective well-being in the uncertainty of life was confirmed in an empirical study. Feelings of connectedness and self-confidence have been found to be resources of subjective well-being in the face of life uncertainty. The mechanism of functioning of resources of subjective well-being in the conditions of uncertainty of life is also covered. In real conditions of uncertainty (on the example of strict quarantine restrictions), the feeling of connection is the main mediator that reduces the negative impact of uncertainty in important areas of life on the subjective well-being of the individual. Also, in situations of uncertainty, an additional resource is tolerance for uncertainty, and self-confidence plays a significant resource role in life in general. The prospect of further research is to study the resources of subjective well-being in conditions of subjectively assessed uncertainty (in normal living conditions).

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