

PECULIARITIES OF TOLERANCE TO UNCERTAINTY OF PEOPLE IN LATE ADULthood AS A FACTOR AFFECTING MENTAL WELL-BEING

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ABSTRACT

The aim: The aim of the article is to empirically study the features of tolerance to uncertainty in late adulthood in groups of working and retired people and test the hypothesis of the impact of communication in social networks as one of the possible ways to increase mental well-being in this category of people.

Materials and methods: The study was conducted in 2021 in the Lviv region of Ukraine. Forty people aged 60 - 75 were interviewed. Among them there were 20 people with a 40-hour working week and 20 retired people. To assess the level of tolerance to uncertainty, the tolerance scale by D. L. McLain (modified by E.M. Osin) has been used; to determine the level of dependence on social networks, the Bergen Facebook Addiction Scale (having tested 20 people who are retired in the age group 60-75) has been applied.

Results: The results of the study showed that: (1) the level of the integrated indicator of "tolerance to uncertainty" is higher among people who work than among those who are retired; (2) people of the age group of 60-75 who work have higher values in all components of the uncertainty tolerance indicator; (3) there is a high interdependence between the expansion of the communication environment through communication in social networks and the level of tolerance to uncertainty among retired people in the age group of 60-75.

Conclusions: People in the age group of 60-75 who work have a greater potential for successful aging due to the higher value of the components of tolerance to uncertainty and their connection to personality traits on which mental well-being depends. The increase in the level of mental well-being of retired people of late adulthood can be achieved through influencing the uncertainty factor: either by employing these people or by actively involving them in communication in social networks.

KEY WORDS: successful aging; mental health; communication space; personality traits

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INTRODUCTION

Health is an integral characteristic of a person's condition and includes a number of subsystems - the most important, interconnected components that reflect the functioning of individual components: physical, psychological and social ones. A key characteristic of a person's psychological health is his/her mental well-being. Mental well-being is not an unconditional characteristic that has clear indicators of evaluation, however, this characteristic is a dynamic state of personality that is influenced by internal (physiological) components and environmental factors.

Uncertainty is one of the important factors influencing the mental well-being of individuals, which has been actively studied in recent decades. In particular, the influence of external environment uncertainty - crises, pandemics, hostilities, etc. on the protective mechanisms of the psychics and achieving a state of positive psychological functioning of the individual is actively studied. Based on the study of the level of mental well-being conducted by the G.S. Kostyuk Institute of Psychology of National Academy of Pedagogical Sciences of Ukraine by age groups, we may see that the older

the respondents are, the lower the level of mental well-being is. In particular, in the age group over 60 years old, the value of this indicator is much lower than the normal value for this age and can be estimated as a low value [1]. This feature, in our opinion, is caused by the synergy of internal uncertainty resulting from active negative biological changes in various systems of a human body and external uncertainty formed by the transformation of socio-economic relations, particularly reduced social activity, distancing of adult children, interests and circles of communication, moral and socio-psychological maladaptation in society due to changes in the modern system of social attitudes and values, experiencing a lack of life prospects, limited self-realization due to gradual withdrawal from professional activities, etc. Of course, these physiological, social, and economic changes for late adulthood have a negative impact on mental well-being and therefore require the research of the factors that enable individuals to prevent or minimize the destructive effects of uncertainty.

Tolerance to uncertainty as a personality trait and inner position is a characteristic that allows you to neutrally

perceive uncertain situations [2] and / or perceive them as a source of new experience [3]. A person tolerant to uncertainty does not experience destructive anxiety in uncertain situations and accepts them as unavoidable and manageable. The research of scientific sources on this subject defines the interpretation of tolerance to uncertainty as: (1) personal characteristics [4-8], (2) a variety of cognitive behaviours [9-10], (3) the integral ability of an individual [11-12], (4) formal and dynamic characteristics of an individual [13-15].

From the standpoint of our study, it is important to diagnose the connection between the components of tolerance to uncertainty with cognitive, stylistic and personal characteristics of a person, including the works by M. Yurtaeva [16-17]; A. Gusev [11] and D. Leontiev, E. Mandrikova who formalized decision-making in a situation of personal choice in conditions of uncertainty [18-19]. These studies are the basis for diagnosing the peculiarities of individual characteristics of tolerance to uncertainty, in particular in late adulthood, and factors that may affect the increase in the level of the studied indicator.

At the same time, the peculiarities of tolerance to uncertainty of people of late adulthood remain insufficiently studied nowadays, both from psychological and sociological points of view. That is why the study of tolerance to uncertainty of late adulthood is extremely important and relevant, both at the individual level and at the national level, given the change of sociological and socio-psychological paradigm of aging and old age in the XXI century, withdrawal from crisis vision of old age as a social problem and return to the interpretation of age as a characteristic of socio-psychological structure and personal biography.

THE AIM

The aim of the article is to empirically study the features of tolerance to uncertainty in late adulthood in groups of working and retired people and test the hypothesis of the impact of communication in social networks as one of the possible ways to increase mental well-being in this category.

Based on this aim, our objectives are: to test the tools common in researches conducted in the EU to identify existing differences between the components of tolerance to uncertainty in working and unemployed people of late adulthood; to determine the presence or absence of personal characteristics expressed by the components of tolerance to uncertainty and processes arising due to social changes caused by the development and dissemination of the information environment in the age group 60-75, as well as due to reduced social contacts of retired people in the age group of 60-75; to test the hypothesis that expanding the communication environment through communication in social networks may increase the level of tolerance to uncertainty in this age group for retired people.

MATERIALS AND METHODS

The study involved 40 people aged 60 - 75 living in Lviv region. Among the respondents, we identified 20 people

who have a 40-hour working week (place of work, income level, position were not taken into account in the process of selecting respondents) and 20 people who do not work and are retired. Data collection took place independently, respondents were selected randomly. There was no statistical difference between the groups.

Mental diagnostic tools: to screen the components of tolerance to uncertainty in groups of working and unemployed people of late adulthood, a survey has been conducted according to a standard one-factor questionnaire "MSTAT-I" by D.L. McLain (modified by E. M. Osin); to detect the level of nonverbal creativity, a test by P. Torrens "Complete Figures" has been used; to detect the level of viability, the Test Maddi S.R. The Personal Views Survey III-R has been applied; to assess the level of communication in social networks, a questionnaire designed for clinical and scientific purposes Bergen Facebook Addiction Scale has been exploited. The survey of the level of communication in social networks was conducted only among respondents who are retired. Qualitative interpretation of the level of communication in social networks was carried out by using the Harrington psychophysical scale.

Mathematical and statistical processing of the results according to the components of tolerance to uncertainty by groups was carried out by using *t* - criterion Student for independent samples and Pearson's correlation coefficient.

Pearson's correlation coefficient has been used to study the relationship between two variables measured in metric scales on the same sample: the level of tolerance to uncertainty and the integral coefficient of dependence on social networks.

RESULTS

The results obtained for the method of measuring the level of tolerance to uncertainty according to the McLain scale are in the range of average values, and with a probability of 95% are higher for people who work than for people who are retired.

In general, statistical data processing by components, revealed probable differences between working people and those who are retired on the scales of the components "attitude to novelty", "attitude to difficult tasks" and "ingenuity". Regarding the components of "adaptability" and "tolerance to ambiguity", the differences are insignificant.

The obtained data (Table I) show that people of late adulthood who work have a higher level of attitude to novelty than people who are retired. The obtained data on the component "ingenuity" for people who work are in the range of average values, in contrast to people of the same age group who are retired, where the indicator becomes low.

No significant differences were found between the groups surveyed on the scales "tolerance to ambiguity" and "adaptability", indicators in both groups can be attributed to the average level of severity with proximity to low values.

The impact of the transformation of the communication process between individuals through the active develop-

Table I. Statistical processing of data according to components of tolerance to uncertainty by groups

Component	Group		Normative value
	for persons from 60 to 75 years old who work n=20	for persons from 60 to 75 years old who do not work n=20	
Attitude to novelty	14.050±3.120 (m = ±0.698)	9.800±2.285 (m = ±0.511)	average value 13.92
Attitude to difficult tasks	34,25±8.342 (m = ±1.625)	32,12±7.421 (m = ±1.525)	average value 33.64
Tolerance to ambiguity	39.600±8.382 (m = ±1.874)	34.100±8.932 (m = ±1.997)	average value 38,57
Adaptability	36.750±8.347 (m = ±1.866)	36.400±7.236 (m = ±1.618)	average value 52,61
Ingenuity	32.450±6.312 (m = ±1.411)	25.900±6.609 (m = ±1.478)	average value 36,74
Tolerance to uncertainty	69.600±8.382 (m = ±1.874)	62.300±8.932 (m = ±1.997)	average value 77,51

m – standard error of averages

ment of digital and mobile technologies in the study age group (respondents over 60 years old) was assessed using a survey that showed that only 14% respondents actively use social networks, in particular, more than 80% use the social network Facebook; 60% of people in this group communicate using mobile applications: Viber, Telegram, Messenger, Whatsapp [1]. That is, only 14% of people of late adulthood expand their communication space, reducing the space of situational uncertainty. Given that communication is one of the important factors influencing mental well-being, we assume that there is a relationship between indicators of tolerance to uncertainty and active use of social networks, the strength and direction of which should be assessed.

The calculations have shown that the correlation coefficient (r) is equal to 0.678, which indicates the relationship between the studied traits as direct, meaning that the more increases the indicator of dependence on the use of social networks, the more increases the integrated indicator of tolerance to uncertainty and the tightness (strength) of connection according to Chaddock scale is significant. The number of degrees of freedom (f) is 18, t-criterion of Student is 1.912. The critical value of t-criterion of Student for a given number of degrees of freedom is 2,101, and the dependence of the features is statistically significant (p = 0.001121).

DISCUSSION

The diagnosis of the links between the components of tolerance to uncertainty and personal characteristics shows that reactions to new events (assessed through the “attitude to novelty” component) occurring among employed people of late adulthood are perceived more latently than those who are retired, as for the respondents who work, the value of the component is in the range of average values,

and for those who are retired is in the range of low values (data from table 1). In addition to our study, this trend is confirmed in other scientific works [20: 24-25].

The existing correlation between the components of “attitude to novelty” and the level of creativity (correlation coefficient is 0.882: significance level is 0.05) allows us to conclude that working people of late adulthood are able to make effective creative decisions in conditions of uncertainty as opposed to retirees. This result does not contradict previous studies [21, 26].

Interpretation of the results of the level of the component “attitude to difficult tasks” allowed us to conclude that people aged 60-75 who work have moderate tolerance to tasks that may be difficult to understand, or to unexpected and difficult situations, or to situations where there is a certain level of uncertainty. And, accordingly, people who do not work negatively perceive uncertain situations, because the value of the indicator is low. This result is consistent with the results described by other scientists using different evaluation methods [20].

Additional studies conducted on the correlation between “ingenuity” component and viability show that there is a positive relationship between these indicators (correlation coefficient is 0.754: significance level is 0.05). Given the value of the component in the range of low averages, it can be concluded that people in this age group have a low level of vitality which indicates a critical assessment of any uncertain situation based on past experience and moderate use of new approaches to uncertainty. Previously, the relationship between these components was evaluated in a scientific paper [21], although the study was conducted in a different age group and the conclusions are close to those obtained in this paper.

No significant differences were found between the groups surveyed on the scales “tolerance to ambiguity” and “adaptability”, indicators in both groups can be attributed

to the average level of severity with proximity to low values, specifically people aged 60-75 have a social unwillingness to manage change and adapt to it under any circumstances. Such result is consistent with the study results of psychological aspects of successful aging conducted in a scientific article [25]. This scientific article shows the existence of a fairly high relationship between the expansion of the communication environment through communication in social networks and the level of tolerance to uncertainty in the age group 60-75 for retirees. This indicates that the increase in the level of tolerance to uncertainty can be achieved by supplementing the existing communication environment with active communication in social networks. But we assume that this level of correlation between the studied indicators occurs only in the absence of emotional dependence on social networks, particularly when the integrated indicator of dependence on social networks is in the range of low or medium values according to the Harrington desirability scale. Therefore if the goal is to increase the level of mental well-being through the influence on the uncertainty factor people have in late adulthood, the easiest way is to actively involve the elderly in communication in social networks. However, this study was limited to the construction and validation of tolerance to uncertainty according to the tolerance scale by D.L. McLain (modified by E.M. Osin) and the level of communicative social activity in social networks using the Bergen Facebook Addiction Scale, which could also affect the results of our calculations.

CONCLUSIONS

The study was exploratory in nature and involved testing the tools common in the EU research and generating hypotheses that could be further verified in larger and more representative surveys.

Analysis of theoretical perspectives on the problem of studying tolerance to uncertainty allows us to determine the diversity of the content of this mental phenomenon, which reflects the specifics of the subject's attitude to uncertain situations and is a factor influencing mental well-being.

Taking into account the peculiarities of the demographic structure of the population and the trends of its changes, the paper presents the results of an empirical study of the level of components of tolerance to uncertainty in the groups of people aged 60-75. As a result of data processing according to the scale of tolerance to uncertainty by D.L. McLain concluded that the level of this indicator is in the range of average values, and with probability of 95% is higher for people who work than for people who are retired.

Surveyed groups of people aged 60-75 differ in terms of response to new events that occur among individuals. For example, employed people perceive new events more positively than people who are retired. Employed persons aged 60-75 have moderate tolerance to the tasks that may be difficult to understand, or for unexpected and difficult situations, or for situations where there is a certain level of uncertainty. And, accordingly, people who are retired have a negative perception of uncertainty, as the value of the indicator is low.

It is statistically confirmed that the growth of the level of tolerance to uncertainty can be achieved by supplementing the existing communication environment with active communication in social networks. But we assume that this level of correlation between the studied indicators occurs only in the absence of emotional dependence on social networks.

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The Authors declare no conflict of interest.

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