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ORIGINAL PAPER

SELECTED INDICATORS OF MENTAL HEALTH IN THE ELDERLY – THE PARTICIPANTS THE UNIVERSITY OF THE THIRD AGE

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Abstract

Aim: The aim of the research study is to identify the selected indicators of mental health, such as meaning of life, experience of well-being, hope, and feelings of loneliness and depression in the elderly participating in the University of the Third Age, in relation to their age and gender. *Design:* A quantitative descriptive study. *Methods:* The selection of respondents was deliberate. The sample consisted of 147 seniors with a mean age of 67.4 (± 4.9) years enrolled at the University of the Third Age at Jessenius Faculty of Medicine, Comenius University. Data were collected by means of self-assessment scales – the Life Meaningfulness Scale, Snyder´s Hope Scale, the Emotional Habitual Subjective Well-being Scale, the Loneliness Scale, and the Geriatric Depression Scale. *Results:* Seniors considered their life meaningful, and expressed a high level of hope. Their emotions were predominately positive. We identified low levels of loneliness and found no indication of depressed mood. We identified significant differences between men and women in evaluation indicators of mental health only in the frequency of positive emotions. *Conclusion:* The study indicates the presence of salutogenic factors affecting the mental health of the sample of seniors in the process of active aging. The results could form the basis for implementing preventive strategies in clinical nursing practice.

Keywords: seniors, active aging, university of the third age, mental health, health promotion.

Introduction

Due to the increase in the population of seniors, more emphasis is being placed on active aging. The WHO defines this concept as a process whereby the chances of being in good health are optimized, leading to improved quality of life in the elderly (WHO, 2002). Active aging potentially allows life-long mental well-being; the chance to participate in society according to individual needs, desires, and abilities; and the chance to enjoy an independent, high-quality life (Chomová et al., 2012). Another element of active aging is life-long education (National Programme of Active Aging for years 2014–2020, 2014; Selecký, 2014). Education of the elderly is becoming a dominant theme in Europe and the rest of the world, and study activities can be considered a protective factor, or, more precisely, a factor delaying the onset of involutive changes (Ruiselová, 2004).

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It contributes to the mobilization of intellectual and cognitive functions, to the reinforcement of physical and mental health and balance, self-confidence, and, thus, to life satisfaction (Mühlpachr, 2004). It provides an opportunity to acquire knowledge in various fields of study, to spend free time profitably, to increase the number and quality of social relations, and it provides an opportunity for self-realization, contributing towards the achievement of a meaningful life (Špatenková, Smékalová, 2015).

Despite the aforementioned positive effects of education at universities of the third age, there is a lack of research that identifies and describes the selected indicators of mental health in the elderly who take part in this kind of education in Slovakia. The research studies conducted here and abroad tend to be preoccupied with the presence of indicators of change in mental health in the elderly with physical or mental disorders; those who live in care homes, or other institutions of this kind; and other elderly risk groups (Markle-Reid et al., 2011; Perissinotto et. al, 2012; Dimunová et al., 2013). However, nursing also has an interest in the strengthening and support of well-being in healthy individuals. One element of preventive

care in the elderly is the support of activities and active uses of free time (Zavázalová et al., 2006).

Aim

The aim of the research study is to identify certain indicators affecting mental health, such as a meaningful life; a sense of well-being and hope; and feelings of loneliness and depression in seniors participating in the University of the Third Age (UTA) at Jessenius Faculty of Medicine, Comenius University (JFM CU), in relation to their age and gender.

Methods

Design

The survey was designed as a quantitative descriptive study.

Sample

The participants were chosen according to the following criteria: aged 60 and above, participating in education at UTA, living in a private home, written informed consent for participation in the research study, with the willingness and ability to co-operate. In total, the sample consisted of 147 elderly people, of whom 41 were men and 106 women. Their mean age was 67.4 (± 4.9) years. The participants attended UTA at JFM CU. As graduation from secondary school is a criterium for being admitted to UTA, the sample does not includee seniors with only primary education. The socio-demographic data of the sample are shown in the Table 1.

Table 1 Characteristics of the sample

Characteristics	n	%
Gender		
women	106	72.11
men	41	27.89
Age		
total mean (SD)	67.4 years (± 4.9)	
women mean (SD)	67 years (± 4.7)	
men mean (SD)	68.5 years (± 5.2)	
Status		
single	9	6.12
married	84	57.14
divorced	17	11.57
partner	3	2.04
widow/widower	34	23,13
Living		
on her/his own	45	30.61
with relatives	102	69.39
Education		
secondary school	85	57.82
university	62	42.18

SD – standard deviation

Data collection

Data were collected by means of five self-assessment scales. The original Slovak scale known as the Life Meaningfulness Scale based on the three-component model of a meaningful life by Reker and Wong (1988), was applied to measure meaningfulness of life (Halama, 2002; Halama 2007). The scale is composed of 18 items, with statements divided into the subscales: cognitive (general aims in life, reasoning and understanding), motivation (goals, plans, activities, involvement in them), and affective (experiencing satisfaction, sense of fulfilment from the achievement of goals, and positive attitude to life). The respondents express their personal attitude towards each issue on the five-level Likert scale, from "I strongly disagree" (1) up to "I strongly agree" (5). The score achieved in the subscales can vary from 6 to 30. Total scale score ranges from 18 to 90, with a higher score indicating higher meaningfulness. A study by Halama (2002) confirmed the reliability of the scale at Cronbach alfa coefficient 0.87.

To identify hope, Snyder's Hope Scale (SHS), based on a two-factor theory of hope positted by the author, was used (Snyder et al., 1991; Snyder, 2002). In the theory, hope is defined as a cognitive concept based on the interaction between agency (our willingness and ability to persevere with a goal) and pathways (our ability to generate workable ways to achieve the goal). The scale consists of 12 items divided into two dimensions – agency and pathways – which the respondent evaluates by means of a four-level Likert scale ranging from "completely false statement" (1) to "completely true statement" (4). There are four items serving as distractors, thus eight items are added to the total score, which can range from 8 to 32. A higher score indicates a higher level of hope. The validity and reliability of the scale have been confirmed by various psychometric studies, in which Cronbach alfa ranges from 0.7–0.84 (Snyder et al., 1991; Joseph, 2015). A Slovak version of the scale has been created and validated (Halama, 2001).

The Emotional Habitual Subjective Well-being Scale (SEHP) is used to measure affective components of subjective well-being, and to identify its presence (Džuka, Dalbert, 2002). The respondents assess how often they experience ten emotions and feelings by means of a frequency scale ranging from "never" (1) to "always" (6). Two variables (the subscales) are being assessed. The first, which measures frequency of positive feelings (FPF), is the sum of values of positive emotions, such as happiness, joy, pleasure, and physical vitality. The second, which measures frequency of negative feelings (FNF), is the

sum ofanger, guilt, shame, fear, pain, and sadness. Its validity and reliability have been confirmed by Džuka, Dalbert (2002) and Kačmárová (2007).

In our study, experience of loneliness was identified by means of the Loneliness Scale (LS) (de Jong-Gierveld, Kamphuis, 1985; de Jong-Gierveld, Tilburg, 1999, Žiaková, 2006; Balogová, 2007), which measures loneliness on emotional and social subscales. It is composed of 11 statements, five of which are positive and six negative. The positive assess feelings of loneliness, whereas the negative are related to aspects of missing social relationships. The respondents should mark the degree to which each statement corresponds with their emotions, for example, how they are feeling at that moment. The answer can be chosen from three options: yes / more or less / no. The total score is the sum of results for the subscales, and is assessed from "not lonely" (0) to "extremely lonely" (11). Cronbach alfa for scale reliability ranges from 0.80-0.90 (de Jong-Grieveld, Tilburg, 2006).

Presence and intensity of depressive mood was assessed by means of the 15-item self-assessment tool known as the Geriatric Depression Scale – Short Form (GDS) (Sheik, Yesavage, 1986; Németh et al., 2007). The scale is made up of 15 items which correlate with symptoms of depression in the elderly. According to guidelines, it can be used as a basic screening tool, and also for seniors in a community (Greenberg, 2012). Using a dichotomous scale (yes / no) respondents answer questions about what they are experiencing and how they are feeling. Their answers are scored as either 0 or 1. The final score is obtained by adding up the points, and can range from 0 up to 15 points. The score 0-7 is considered standard, while scores of over 8 points indicate the presence of depression (Németh et al., 2007). The validity and reliability of the GDS have been confirmed in many clinical studies (Greenberg, 2012).

Sociographic items and data on subjective assessment of health were also included in the set of self-assessment scales and were represented on the Likert scale from "excellent health" (1) to "bad health" (5).

Data were collected from participants of the UTA at JFM CU during the period from March 2014 to January 2016. Seniors were given the questionnaire in person. In total, 186 questionnaires were distributed, and 163 returned: a recovery rate of 87.63%. However, 16 were not fully completed. Thus, 147 questionnaires were processed by means of statistical analysis.

Data analysis

Empirical data obtained in the questionnaires were marked by a code and converted to an electronic format on MS Excel 2010. The SPSS 10 program was used for statistical analysis. Statistical testing was conducted by means of descriptive and inductive statistics. Student's t-test was applied to compare differences. The results of analysis were considered statistically significant if the p-value of the test was lower than 0.05 ($p < 0.05$). Pearson's correlations were used to compare mutual relations.

Results

Seniors regarded their lives as meaningful in each of the following three dimensions – cognitive, motivational, and affective. They expressed high levels of hope in the success of their efforts (goal-oriented behaviour) as well as in their plans for achieving their goals. Experience of positive emotions exceeded that of negative emotions, indicating the presence of subjective emotional well-being. A low degree of social and emotional loneliness was identified in the sample. Depression was not indicated by the Geriatric Depression Scale (Table 2).

Table 2 Identified indicators of mental health of respondents

Scale	mean	SD
Life Meaningfulness Scale	72.75	5.97
cognitive subscale	24.52	2.25
motivational subscale	23.69	2.25
affective subscale	24.54	2.36
Snyder's Hope Scale	25.14	1.97
agency dimension	12.41	1.14
pathways dimension	12.73	1.16
Emotional Habitual Subjective Well-being Scale		
the frequency of positive feelings	3.91	0.59
the frequency of negative feelings	2.28	0.37
Loneliness Scale (Total score)	3.69	2.64
emotional loneliness	2.20	1.58
social loneliness	1.49	1.56
Geriatric Depression Scale	2.60	1.84

SD – standard deviation

Seniors subjectively considered their health condition to be good, women giving themselves significantly higher ratings than did men (Table 3).

Statistically significant differences were identified between men and women in assessed indicators for mental health only in the case of frequency of positive feelings, with women reporting experiences of positive emotions more often than men (Table 4).

Table 3 Subjective evaluation of health and differences in evaluation of health in relation to gender

Subjective evaluation of health	mean	SD	t-test
complete sample	3.40	0.65	
women	3.52	0.58	
men	3.10	0.75	**0.01**

SD – standard deviation, $p \leq 0.05$

No significant correlations between age and selected variables were identified after correlation analysis. A moderate correlation was identified between subjective assessment of health and perception of meaningful life, indicating that the better the elderly assess their health to be, the more meaningfulness they assign to their lives. Strong positive correlations between experiencing meaningfulness and levels of hope, as well as between levels of depression and experience of loneliness, were found. A moderate negative correlation was found between experience of positive and negative emotions. Regarding experiences of well-being, we identified a moderate correlation between the frequency of positive and negative feelings. A strong correlation was identified between experiencing depression and loneliness. In depressive individuals, intensity of depressive mood rises alongside feelings of loneliness (Table 5).

Table 4 Identified indicators of mental health and differences according to gender

Scale		mean	SD	p
Life Meaningfulness Scale	Women	72.56	5.78	
	Men	73.24	6.53	0.30
Snyder's Hope Scale	Women	25.11	1.78	
	Men	25.22	2.45	0.42
Emotional Habitual Subjective Well-being Scales				
the frequency of positive feelings	Women	4.03	0.58	**0.00**
	Men	3.59	0.39	
the frequency of negative feelings	Women	2.24	0.54	0.06
	Men	2.37	0.31	
Loneliness Scale	Women	3.73	2.64	
	Men	3.61	2.74	0.42
Geriatric Depression Scale	Women	2.58	1.88	
	Men	2.63	1.72	0.46

SD – standard deviation, $p \leq 0.05$

Table 5 Results of correlation analysis between the variables

	Age	Health	LMS	SHS	FPF	FNF	LS	GDS
Age	1							
Health	0.07	1						
LMS	-0.21	**-0.38**	1					
SHS	-0.12	-0.28	**0.54**	1				
FPF	0.03	0.00	0.22	0.16	1			
FNF	-0.09	-0.05	-0.18	-0.15	**-0.37**	1		
LS	-0.02	0.10	0.15	0.15	0.01	-0.09	1	
GDS	0.05	0.03	-0.01	0.05	0.02	-0.12	**0.52**	1

LMS – Life Meaningfulness Scale; SHS – Snyder's Hope Scale; FPF – frequency of positive feelings; FNF – frequency of negative feelings; LS – Loneliness Scale; GDS – Geriatric Depression Scale – Short Form. 0.1–0.3: weak correlation, weak relationship between variables; 0.3–0.5: moderate correlation, medium to strong relationship between variables; over 0.5: strong correlation, strong relationship between variables.

Discussion

The UTA plays a specific role in lifelong education, promoting individual self-development rather than professional training (Mühlpachr, 2004). In brief, this type of education has preventive, rehabilitative and activating functions, besides affecting health in a positive way (Špatenková, Smékalová, 2015). In our study, we investigated the presence of salutogenic factors of mental health, such as meaningfulness, experience of emotional well-being, and hope (Moraitou et al., 2006; Ondrušová, 2010). Negative indicators, such as experience of loneliness or depression, were also studied. Our research revealed a low degree of general loneliness, including both emotional and social forms. The total mean score on the Geriatric Depression Scale (2.60 ± 1.84 points) indicated the absence of depressive mood (Table 2). Occurrence of depressive mood in our sample of the

elderly was lower than in other studies (Németh et al., 2007; Kubešová et al., 2008; Underwood et al., 2011). It may be closely related to the lower mean age of the seniors, to their maintained independence, and to their living in private homes (in contrast to those in care homes). Kim et al. (2009) describe variables such as higher age, low socio-economic status, and loneliness as closely connected to the incidence of depression in the elderly.

A strong correlation (0.52) between experiencing depression and loneliness (Table 5) was found. Loneliness is often described as a symptom of depression (Perissinotto et al., 2012) and this co-existence has been confirmed by several studies (Singh, Misra, 2009; Aylaz et al., 2012). Loneliness is present in approximately 30% of individuals over the age 55 and it is a chronic condition for 15–30% of individuals (Tylová et al., 2014; de Jong-Gierveld, Tilburg, 2010).

The elderly regard their health condition as good. Regarding gender, a statistically significant difference was identified – women assessed themselves to be in better health than did men (Table 3). Being in good physical condition allows the elderly to achieve their goals (Moraitou et al., 2006). Those in our sample regard their life as meaningful in all three categories (Table 2). Generally speaking, a meaningful life is characterized as a sense of direction in life, having core convictions and goals, and a reason to live (Halama, Semancová, 2014).

Positive experience of a meaningful life is a good predictor of mental health, personal integration, well-being, and mental and emotional stability (Moore et al., 2006), which has an impact on quality of life (Ondrušová, 2010). From the set of indicators selected, a moderate correlation between the experience of a meaningful life and subjective assessment of health was confirmed by correlation analysis, also confirmed in a study conducted by Ondrušová (2010). Various studies also focus on social relationships and interaction as sources of meaningfulness since they are regarded as two of its fundamental roots (Takkinen, 2001; Halama, Semancová, 2014). In our study, the results obtained by Pearson's correlation analysis did not indicate a correlation between loneliness and meaningfulness (Table 5). This could be explained by seniors not being confronted with loneliness (Table 2), and the experience of meaningfulness in their lives being conditioned by their subjective assessment of their health (-0.38), and their experience of hope (0.54) (Table 5). Hope provides strength, directs behavior towards the achievment of life goals, fills life with meaningfulness even when there are difficulties, and allows us to adapt to changes in everyday life (Křivohlavý, 2006; Moraitou et al., 2006). According to Snyder´s Hope Scale, the elderly experienced a high degree of hope in terms of agency (goal-oriented behaviour) and pathways (Table 2). When faced with depression caused by stressful life events, hope is an important component serving as a vital internal source of quality of life. High levels of hope boost the ability to adapt to life changes in a positive way and help to maintain feelings of well-being and contentment. Individuals with high levels of hope have more goals, are more successful in their achievement of them, and experience meaningfulness in their lives more intensively (Farský et al., 2012). The well-known and frequently mentioned correlation between depression and low levels of hope (Dabaghi, Moghaddam, 2015) was not indicated in our study. One of the reasons could be the low number of seniors with depressed mood.

The Emotional Habitual Subjective Well-being Scale (Džuka, Dalbert, 2002) revealed that the experience of positive emotions predominates over the negative, meaning that experience of emotional subjective well-being is present in the research sample. Statistically significant differences between men and women were identified in their frequency of experiencing positive and negative emotions. Women experience positive emotions more frequently than men (Table 4). The differences in experiencing well-being in men and women are explained by Kačmárová (2016) on the basis of frustration due to important motives for a subject.

Otherwise, there were no other significant differences in assessment of indicators of mental health by gender (Table 4). Age did not have a significant impact on the selected set of parameters of mental health. This is similar to the findings of Moraitou et al. (2006), who state that age does not necessarily influence the experience of hope. In our sample, those in the early stages of old age predominated (89.8%). The correlation between age and other variables within the group of people of the same age is not necessarily obvious.

Conclusion

Based on the results of our study, the seniors who attend the UTA at JFM CU can be considered mentally fit. They have high levels of meaningfulness and hope, and experience positive emotions more often than negative. Likewise, most of them do not feel depressed or lonely. The results show that further education in older age, which is one of the elements of active aging, can be related to mental well-being in the elderly. Education at the UTA provides

knowledge, develops cognitive and emotional skills, and allows adaptation to new trends. Study activities in the elderly can be regarded as a protective factor which encourages stimulation of cognitive functions, as well as physical and mental health. It strengthens self-confidence, and, thereby, satisfaction with life. The social aspect of the UTA improves the social situation of seniors, and makes their social role more important. The elderly have an opportunity to keep in touch with their peers, or even to meet new people and develop a new social network, which boosts feelings of usefulness and self-esteem. Both aspects of the UTA lead to the enrichment of life of the elderly and an increase in their quality of life. The results of the study could be the starting point for the implementation of preventive strategies which could strengthen the mental health and social well-being of the elderly in clinical nursing.

Ethical aspects and conflict of interest

The study was conducted according to the ethical recommendations of the Helsinki declaration (2002). The study was approved by the Ethical committee at Jessenius Faculty of Medicine in Martine, Comenius University, Bratislava. All participants were informed of the aims of the study and agreed to take part in it. The authors declare that there is no conflict of interest.

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Author contribution

Conception and design (IF, MT), data analysis and interpretation (MT, IB, IF), drafting the manuscript (MT, IB), critical revision of the manuscript (IB, IF, MZ), finalization of the manuscript (MT, IB, MZ).

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