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Spirituality as an influential holistic factor in life satisfaction in older adults: descriptive research

Duchowość jako holistyczny czynnik wpływający na satysfakcję z życia osób starszych: badanie opisowe

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STRESZCZENIE

DUCHOWOŚĆ JAKO HOLISTYCZNY CZYNNIK WPŁYWAJĄCY NA SATYSFAKCJĘ Z ŻYCIA OSÓB STARSZYCH: BADANIE OPISOWE

Cel pracy. Satysfakcja z życia jest istotną siłą napędową i ważnym czynnikiem w poczuciu stabilności człowieka. W badaniu autorzy chcieliby ustalić, który z holistycznych czynników jest najmocniej związany z satysfakcją z życia w starszym wieku.

Materiał i metody. Badanie opiera się na metodzie ilościowej, metodzie opisu, zestawieniu i przyczynowej metodzie nieeksperymentalnej. Zastosowano technikę ankietową. W badaniu wzięło udział 656 osób starszych w wieku od 65 do 98 lat. Dane pozyskano przy użyciu różnych standaryzowanych instrumentów pomiarowych. Aby określić siłę związku między czynnikami holistycznymi a satysfakcją z życia osób starszych, wykorzystano zaawansowane metody statystyczne do analizy efektów przyczynowych i asocjacji warunkowych (metoda propensity score).

Wyniki. Stwierdzono, że najważniejszym czynnikiem wpływającym na zadowolenie z życia u osób starszych jest czynnik duchowy (R^2=0,37) i wskaźnik samooceny (R^2=0,488) w jego obrębie. Kolejnymi czynnikami są czynnik psychologiczny (R^2=0,21), czynnik społeczny (R^2=0,19) i wreszcie czynnik fizyczny (R^2=0,05).

Wnioski. Duchowość kieruje życiem osób starszych i pomaga im przezwyciężyć różne problemy życiowe. Ponieważ duchowość jest pojęciem wielowymiarowym, niniejsze badanie stanowi ważny punkt wyjścia do dalszych badań w tej dziedzinie.

Słowa kluczowe: satysfakcja z życia, duchowość, osoby starsze, holizm, metoda propensity score

ABSTRACT

SPIRITUALITY AS AN INFLUENTIAL HOLISTIC FACTOR IN LIFE SATISFACTION IN OLDER ADULTS: DESCRIPTIVE RESEARCH

Aim. Life satisfaction is an important driver of life and an important factor in the personal stability of a person. With the research, we wanted to find which of the holistic factors is most related to life satisfaction in old age.

Material and methods. The research is based on the quantitative method of research, the method of description, compilation and causal non-experimental method. We used the survey technique. A total number of 656 older adults between the age of 65 and 98 participated in the survey. We obtained the data using various standardised measuring instruments. In order to determine the strength of the connection between holistic factors and life satisfaction in older adults, we used advanced statistical methods for the analysis of causal effects and conditional associations (propensity score methods).

Results. We found that the most important factor for life satisfaction in older adults is the spiritual factor (R^2=0.37) and the self-esteem index (R^2=0.488) within it. The spiritual factor is followed by a psychological factor (R^2=0.21), social factor (R^2=0.19) and finally the physical factor (R^2=0.05).

Conclusions. Spirituality directs the lives of older adults and helps them to overcome various life problems. Since spirituality is a multidimensional concept, this research is an important starting point for further research in this field.

Key words: life satisfaction, spirituality, older adults, holism, propensity score methods

INTRODUCTION

Ageing and old age are experienced differently by each individual, who are unique with their own characteristics that must be taken into account for them to be satisfied with life [1]. Ageing is a lifelong physiological and progressive process that changes a healthy, homeostatically regulated organism into a less healthy, homeostatically fragile organism [2]. Older adults often suffer from chronic diseases and disabilities that increase their vulnerability and reduce their social activities, level of mental health and life satisfaction. Life satisfaction is related to family, financial situation, safety and health, size of their social network and level of social support [3], and it is also related to spirituality and religion [4-7]. Kristovič believes that the concept of „spirituality" or „being spiritual" is one of the most manipulated and unclear concepts to date [8].

Spirituality can be understood as a multidimensional concept [9], as a theoretical construct that refers to specific human activities [10] and is an integral component of health [11,12], separated from religion [11] and „increasingly becoming a priority for the older adults in their third and fourth life stages" [13]. Spirituality is a universal experience of all people, and it differs for each individual due to their culture, ethnicity, religion, profession, personal experiences and other influences. It can shorten recovery time and reduce morbidity and mortality [3].

A person is a holistic being influenced by holistic factors as a whole – physical, psychological, social and spiritual factors, and individual building blocks (indices) within them, which we identified on the basis of a review of scientific and professional literature and on the basis of holistic theory [14]. We defined individual indices within each factor, namely within the physical factor: health literacy, health status, functional ability to perform daily activities, risk factors; within the psychological factor: cognitive abilities, loneliness, emotions, social networks; within the social factor: living conditions, lifestyle; and within the spiritual factor: self-esteem and self-image and spirituality. Using this approach, we wanted to ensure that older adults would be treated from a biopsychosocial and spiritual perspective (Fig. 1) [1].

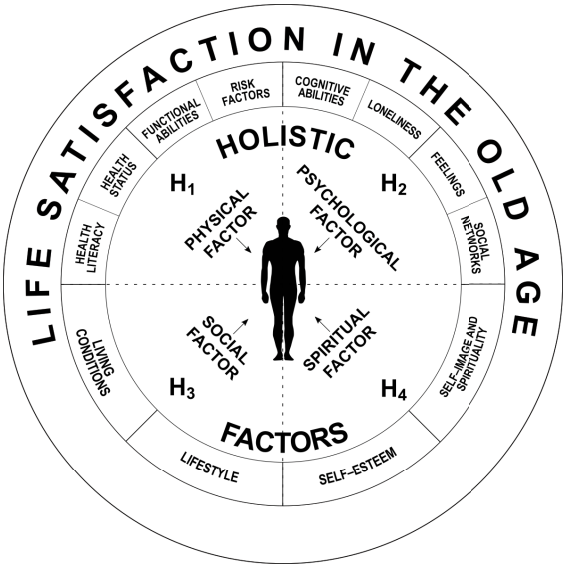

Fig 1. Holistic Model for Ensuring Life Satisfaction in Older Adult [1]

The individual building blocks (indices) within the holistic factors are presented below.

Physical factor: Chronic non-communicable diseases are a key health burden in Slovenia and also in other developed societies, and they significantly hamper the social and economic development of countries [15]. Filej et al. found that the level of quality of life decreases in all measured areas of health as the number of chronic diseases increases, that the component „physical health" is rated lower than the component „mental health" and that it is higher in males [16]. With regard to the measured areas of health, they found that not only medical care (physical support) but also psychological, emotional and social care is needed when a chronic disease occurs.

Therefore, it is important in old age to ensure adequate living conditions and a healthy lifestyle among other things [17]. Special attention should also be paid to preventing falls and promoting physical activity [18].

It is important for older adults to have access to information, to understand it and to receive help in maintaining their health, that is, to be health literate [19]. Štemberger-Kolnik states that health literacy refers to the ability of people to meet the complex requirements for maintaining health in modern society [20].

Mental factor: Important for older adults are emotions, such as happiness and life satisfaction, as well as social networks. Kaučič [1] states that emotion is a mental process by which we subjectively express our value attitude towards an object, person, or action, and often also towards ourselves. Maček et al. believe that the essential social network for an older adult is the family, the structure of which has changed over time [21]. Social relations are first established with family members and relatives, then with friends, acquaintances, neighbours and others.

Intergenerational coexistence in the family takes place in different ways, and care for older adults or family members also changes with the dynamics of the society in which the family lives [22].

Štandeker [23] believes that loneliness is not a general characteristic of older adults only, but that a person can be lonely in all stages of life. If an old person cannot satisfy their need for an individualised interpersonal relationship with someone, they are lonely, no matter how many people are around them. Loneliness is becoming a serious health issue in today's society [23].

The cognitive abilities of an older adult play an important role in the performance of everyday tasks, activities and independent living. Lavrač and Srakar [24] note that cognitive functions decline with age, which is particularly evident in memory functions [24]. Age is the only negative correlation with memory, confirming that the risk of dementia increases with age.

Social factor: Older adults are a vulnerable group of the population which is also more exposed to the risk of poverty [25], since a large number of people receive a pension that does not enable them to live a dignified existence and places them below the poverty threshold [1]. Women, singles and people with lower education are more exposed to poverty [26].

In old age, attention should also be paid to maintaining a healthy lifestyle, as this helps to slow down the degenerative processes that affect ageing. A healthy diet and regular, moderate physical activity in the absence of risk factors (smoking, alcohol) have a positive effect on healthy and active ageing [1].

Spiritual factor: The term spiritual is very vague and ambiguous; people perceive it as an answer to the question of the meaning of their existence and awareness and the origin and meaning of the existence of the entirety of reality. Spirituality is a person's fundamental direction on the path of life and a connector of everything into a meaningful whole [27]. It is a dynamic dimension of a person through which they experience, express and/or search for meaning and purpose in life [28]. Spirituality gives meaning, purpose and peace to the existence of an individual [11].

Self-image and self-esteem are important elements of life satisfaction in old age and are not synonymous. Self--image is how we see ourselves, what we think of ourselves, and how we think others see us. Positive self-image is the ability to accept oneself with all the positive and negative qualities that entails [1]. Self-esteem reflects a critical judgement about the value of oneself. It is a combination of how others perceive us and how we perceive their judgements [29]. The reason that more attention is paid to physical factors than to psychological, social and spiritual factors in old age can be attributed to the long-standing presence of the medical model of treatment of the older adult, which focuses on the disease and less on the person as a whole, as provided by the biopsychosocial model of treatment which must also include a spiritual factor [1].

With the research, we wanted to find out which of the holistic factors (physical, psychological, social, spiritual) is most related to satisfaction with life in old age.

METHOD

We used a quantitative research approach, a method of description, compilation and a causal non-experimental method. In order to determine the strength of the connection between holistic factors and life satisfaction in older adults, we used advanced statistical methods for the analysis of causal effects and conditional associations, i.e., propensity score methods [30] that allow comparison of two statistically comparable groups. Factors were analysed by sets.

Methodology of the analysis: Given that this study involves comparative analysis of non-randomized data collected via survey, we initially balanced the study design to ensure comparability between groups characterized by high and low levels of the index. To achieve this, we employed a propensity score, as outlined by Rosenbaum and Rubin, serving as a balancing score and matching method [31]. The propensity score was computed based on observed covariates selected for their relevance to the dataset and the analysis objective, which focuses on understanding the influence of factors on life satisfaction. Consistency across comparability studies was ensured by maintaining uniformity in the models used to assess propensity scores. To this end, the selected observed covariates encompassed gender, education, location of residence, and age. Logistic regression was utilized to estimate the propensity score, employing the following model:

$$\text{logit(IK)} = b_0 + b_1\text{gender} + b_2\text{education*location} + b_3\text{age*gender}$$

where IK represents each index within each individual studied factor. For the criterion of model specification, we used the balance of observed covariates. The selected model enabled us to balance observed covariates between units that reach the high and low levels of each index.

Imbalance: Some units displayed values of variables used to balance the study plan that fell outside acceptable ranges. These outliers were addressed through a matching process. Matching was performed using the nearest neighbor algorithm, whereby each unit with a high index level was paired with a statistically comparable counterpart from the low index level group (1:1 matching). Following the completion of the matching process, differences in life satisfaction between respondents with high and low index levels were evaluated based on matched data.

Our objective was to ascertain whether a statistically significant difference in life satisfaction existed between the two groups under comparison (high/low index levels). This difference was assessed using Welch's t-test, which is employed for comparing the mean values of two samples. Welch's t-test examines the following hypotheses:

Ho: The difference in average value of life satisfaction between those with high index level ($\bar{X}_V$) and those with low index level ($\bar{X}_N$) equals zero.

H1: $\bar{X}_V - \bar{X}_N \neq 0$

The connection of respective indexes with life satisfaction was estimated by means of simple linear regression:

$$\text{Life satisfaction} = \beta_0 + \beta_1\,\text{IK} + \varepsilon$$

In this way, the estimates of conditional associations between the selected indexes and life satisfaction were acquired.

We investigated the association between holistic factors and life satisfaction using variance analysis. The sum of squares for each index indicates the extent of variation within the model attributed to the correlation between life satisfaction and the specific index. A higher value suggests a closer relationship between life satisfaction and the respective index. Our focus was particularly on understanding the correlation between the sum of squares for individual indexes and the total sum of squares (which includes the sum of squares for individual indexes and the sum of squared residuals). This correlation is represented by the multiple R-squared. Through our analysis, we aimed to determine the strength of the connection between the spiritual factor and life satisfaction among older individuals.

Instrument description

We used various measuring instruments to obtain data:

- The SWLS (Satisfaction with Life Scale) scale [32] for studying satisfaction with life;
- Oldwellactive (A self-rated wellness profile for the assessment of well-being and wellness activity in older people) for studying the lifestyle of older adults [33];
- IADL (Instrumental Activities of Daily Living) for studying the measurement of the functional ability to perform everyday instrumental activities [34];
- SPANE (Scale of Positive and Negative Experience) for studying emotions [35];
- Rosenberg Self-Esteem Scale (SES) [36].

Reliability of the measurement instrument

The validity of the instrument is the most important measurement characteristic. For a questionnaire to be valid, it must obtain data that is true and consistent with the research objectives. According to Cencič [37], reliability (consistency) refers to the stability, soundness or consistency of the data, ensuring that it can be relied upon. The reliability of the questionnaire was determined using the method of internal consistency analysis, which is the most used method of determining the reliability of the instrument and requires one measurement. The value of the Cronbach alpha coefficient was as shown in Tab. 1. Based on this value, we concluded that the reliability of the questionnaire was adequate, as the Cronbach alpha coefficient by set ranged from 0.754 to 0.953.

Tab. 1. Reliability of the instrument in the conducted study

Instrument	Number of items	Cronbach alpha coefficient
SWLS [32]	5	0.815
IADL [34]	25	0.953
SPANE [35]	12	0.765
Rosenberg Self-Esteem Scale [36]	10	0.814
General about age and quality of life	20	0.754

We did not use all the questionnaires, but only individual parts that were relevant for our research. We combined the questions and statements and added 20 more general statements about age and quality of life, which we formulated on the basis of a literature review [38-42]. This was followed by questions about demographic data.

We have obtained permits for all of the listed standardised instruments. The ones in English language were translated twice. All foreign measurement scales were tested in a pilot study on a sample of 50 older adults living in the home environment before the research.

Description of the sample

We used a simple random sample in the research, with stratified sampling by region. In accordance with the size of the 65-year and older population, we selected proportional stratification by statistical regions (sample sizes in strata are proportional to stratum sizes). Creative Research Systems, Sample Size Calculator [43] was used to calculate the sample. Given the size of the population aged 65 and over (326,250), we chose proportional stratification by region (sample sizes in strata are proportional to stratum sizes). We chose a confidence interval (+/–3%) for sample precision. Such a confidence interval means that if 70% of the respondents answer a certain question affirmatively, the result for the entire studied population will, with 95% confidence, be between 67% and 73%. Included in the study were 1064 older adults from ten statistical regions who live in a domestic (n = 532) and an institutional environment (n = 532). We took into account the following inclusion criteria: age 65+, male and female, region of residence, location of residence (home environment, social assistance institution), without dementia and other mental disorders, ability to communicate and reading literacy.

The survey involved 656 respondents with an average age of 78.2 years, mostly widowed persons, of which 33.9% had a high school education (Tab. 2).

Tab. 2. Demographic data of respondents

Demographic factor	n = 656	%
Sex		
Male	186	28.4
Female	470	71.6
Marital status		
married	246	37.5
single	48	7.3
widowed	302	46.0
separated, alienated	43	6.6
non-marital partnerships	17	2.6
Education		
primary school	132	20.1
professional	146	22.3
secondary	229	33.9
further education, higher education	97	14.8
university and more	52	7.9
	AV ± SD	Range
Age (in years)	78.2 ± 8.0	65-98
Monthly income (in EUR)	722 ± 293	0-1800

Description of the research and data processing procedures

The research took place in 21 social welfare institutions, in ten statistical regions, and in the home environment. Respondents were randomly selected and met the inclusion criteria. We distributed 532 survey questionnaires in each environment, which accumulated to a total of 1,064. There were 656 correctly completed questionnaires, with the sample realisation being 61.6%, and 57.9% in the home environment, which indicates a better health status of older adults. The number of 43 interviewers participated in the data collection. Respondents needed from 45 to 69 minutes to complete the questionnaire in their home environment, and up to 120 minutes in social welfare institutions. Correctly completed questionnaires were

encrypted (ID determined) and the data were entered into the data entry matrix (Excel). The data were analysed using descriptive and inferential statistics methods. First, we calculated mean values (arithmetic mean) and variability measures (standard deviation) for the variables. Sets of individual variables were combined into new variables. When inferring from the sample to the population (inference), we performed statistical tests, such as the t-test (to compare the averages of two independent groups), the ANOVA test (to compare the averages of several groups), and the chi-square test (to test the independence of nominal variables). The association of ordinal variables was checked with Spearman's rank correlation. The analysis was performed with SPSS 22.0 software.

To study the size of the association between individual indices with life satisfaction in old age, we used the R-squared (R^2), a statistical method that explains the strength of the relationship between independent and dependent variables.

To conduct a propensity score study, we first had to refine the database, which contained missing values for individual variables in some studied units. Variables with more than 10% missing values were excluded from the analysis. In the majority, the variables had less than 5% missing values. Missing values were imputed using chained equations, which use linear regression for continuous variables, logistic regression for dummy variables and polynomial regression for discrete variables with more than two levels. The R package Mice was used for implementation [44].

Ethical aspects of the research

Prior to commencing the investigation, authorization was secured from the Faculty's Commission for Scientific Research, which diligently evaluated the ethical dimensions of the proposed research. Following a thorough review, the Commission determined that both the study and its measurement tools adequately addressed ethical considerations and were suitable for conducting the research. Informed consent was obtained from all participants, who were fully briefed on the study's objectives and procedures in advance. Participants were assured of their right to withdraw from the study at any point during its progression.

RESULTS

The purpose of the comparative analysis of multiple R-squares is to show the magnitude of the connection that each index has with life satisfaction. We want to answer the question of which of the factors is most closely related to life satisfaction in old age, or which most helps individuals to be satisfied with life.

Multiple R-squared estimates are derived from an analysis of variance performed on matched data. The dependent variable was satisfaction with life, and the independent variable was the individual index. Tab. 3 presents the multiple R-squared values for individual indices, their level of statistical characteristics and the size of the matched sample (preserved/effective sample), on the basis of which the analysis of variance was made. As can be seen from the table, the indices functional ability and risk factors are not statistically significant at 99 percent confidence, as are the remaining indices. However, this does not mean that there is no positive or negative relationship between these two indices and life satisfaction (as indicated by the estimated value of the conditional association of each index). The reason for the statistical non-significance may be the sample size. Therefore, we will include them equally below in the graphic display of the strength of the connection of individual indices with life satisfaction.

The next peculiarity of the obtained results is the high value of the multiple R-squared for the indices self--respect and emotions, despite the relatively small effective sample. These indices are made on the basis of variables (questions) that are methodologically elaborated (Rosenberg and SPANE/Diener & Biswas-Diener), and at the same time supported by an elaborate methodology for their calculation. The remaining indices are formed on the basis of the theory of the studied area and as such have not yet been fully processed methodologically.

Tab. 3. Multiple R squared for each index

	Multiple R squared	Preserved n (effective n)	p - value
Physical factor			
Health literacy	0.137	75.61 % n = 496	0.000
Health status	0.047	41.77 % n = 274	0.000
Functional ability to perform daily instrumental activities	0.015	34.45 % n = 226	0.067
Risk factors	0.001	35.7 % n = 234	0.607
Mental factor			
Social networks	0.176	59.76 % n = 392	0.000
Emotions	**0.366**	27.44 % n = 180	0.000
Loneliness	0.151	77.44 % n = 508	0.000
Cognitive abilities	0.162	77.44 % n = 508	0.000
Social factor			
Living conditions	**0.296**	58.14 % n = 388	0.000
Lifestyle	0.104	64.33 % n = 422	0.000
Spiritual factor			
Self-respect	**0.488**	2.44 % n = 16	0.003
Self-image and spirituality	**0.255**	42.10 % n = 276	0.000

Table 3. shows that the following indices are most strongly associated with life satisfaction: emotions, living conditions, self-esteem, self-image and spirituality. They are followed by social networks, cognitive abilities, loneliness, health literacy and lifestyle. The remaining factors (health status, functional abilities and risk factors) are least strongly related to life satisfaction.

The connection between the indices and life satisfaction is shown in the form of a network in Fig. 2.

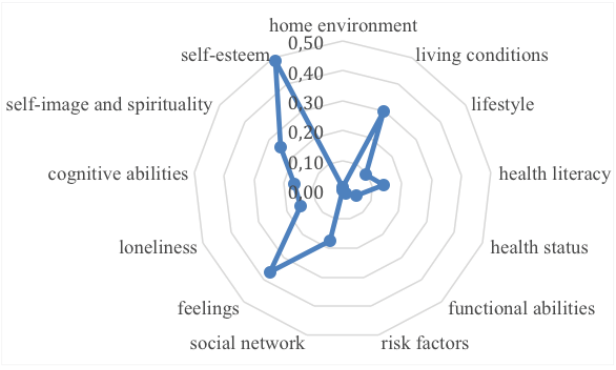

Fig 2. Correlation between indices in accordance with the studied holistic factors

In order to show the strength of the connection of individual factors (physical, psychological, social and spiritual factors) with life satisfaction, we combined the values of multiple R-squares (Tab. 3) for individual indices within each factor. The merger was done by calculating the average value of the multiple R-squared indices that make up the individual studied factor.

According to the average value of the multiple R-square, the spiritual factor (R^2=0.37) is most strongly related to life satisfaction, it is followed by the psychological factor (R^2=0.21), social factor (R^2=0.19) and finally the physical factor (R^2=0.05) (Fig. 3).

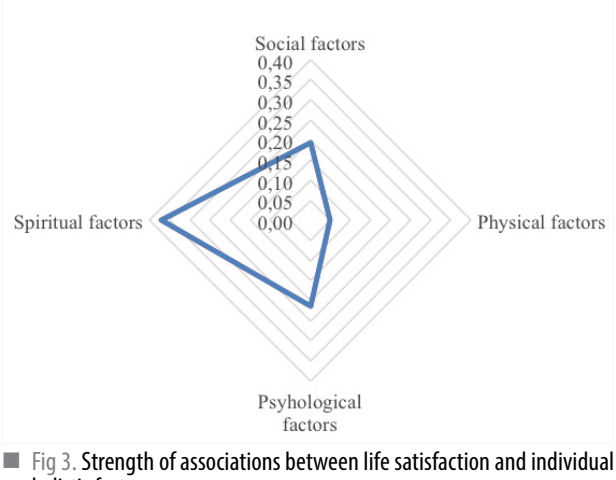

Fig 3. Strength of associations between life satisfaction and individual holistic factors

Fig. 3. shows that the strength of the connection between the spiritual factor and life satisfaction is the greatest. The strength of the connection between psychological and social factors is very small, therefore it is difficult to say which of these two factors is more related to life satisfaction. The strength of connection of the spiritual factor is high due to the self-respect index. We must be aware that this index was created on the basis of Rosenberg's methodologically elaborated construct, while no index in the physical factor was created on the basis of a previously methodologically elaborated construct. Despite the fact that we also used validated questionnaires for the physical factor, we did not include them in their entirety as in the case of self-esteem, but individual variables. The same applies to the social factor. In the case of the psychological factor, the average value is also pushed up due to the emotion construct, which is also a methodologically elaborated construct. The largest deviation is detected in the physical factor, which has the lowest value (R^2=0.05) of all studied factors. The physical factor is so low due to the low value of the indices: state of health, functional ability to perform daily instrumental activities and risk factors, while the health literacy index is much higher (0.14). The scale used to measure the functional ability to perform everyday instrumental activities did not prove to be the most suitable for our research, as it does not allow effective measurement of the functional ability of older adults, and is more suitable for categorising residents in homes for the elderly, where they can determine with its help the daily instrumental activities residents need partial or complete help with, and those in which they are completely independent.

The above statements lead us to the conclusion that the order of the studied factors could be different if all the indices were measured on the basis of methodologically verified constructs, so limitations should be taken into account for the further study of the research problem. Despite the fact that the sample is not representative, the results can be generalised, based on the analysis, to the population of older adults, as the obtained results are the outcome of an analysis that was made on a balanced study plan.

DISCUSSION

Through the research, we found that the spiritual factor is the most important of the holistic factors for older adults. The self-esteem index within the spiritual factor is more strongly related to life satisfaction, while this does not apply to self-image and spirituality to the same extent.

We must be aware, as noted by Peteet et al. who studied spirituality in older adults, that the concept has been changing over the past 20-25 years to include those who are not religious [45]. The concept of religion is easier to define because there is more agreement on what religion is. Spirituality is a very broad concept that varies in every individual. Being spiritual rather than religious is a category more relatable to younger adults. The conclusion of authors Lifshitz et al. is the opposite [4]; they found that the importance of spirituality among older adults is increasing significantly, and this is because, as noted by Carstensen et al. [46], they are aware of the ever-shorter life ahead of them. Lifshitz et al. cite a study of older adults conducted in Spain that found spirituality to be a significant contributor to life satisfaction [4].

The relationship between spirituality and life satisfaction among older adults was also studied by Mukherjee [47], who found that spirituality has mostly positive effects on well-being and life satisfaction in late age. Older adults, who were included in the research, accepted spirituality as an important aspect of their lives, as they are aware that spirituality helps them in their old age to cope more easily with old age and with the processes typical of this period.

An individual's greater perception of spirituality is also associated with less depression [3,48,49] and older adults are more likely to be more appreciative of health care professionals who consider their spiritual values in health care [50].

Zadworna-Cieślak wanted to determine whether life satisfaction acts as a mediator in the relationship between spirituality and health-related behaviour of residents in long-term care facilities with a survey of older adults aged from 60 to 99 [10]. She found a strong connection between life satisfaction and the level of health and positive attitude towards life, as well as between life satisfaction and spirituality. Papi and Cheraghi included older adults in their research and found that social assistance and daily activities significantly predicted the level of life satisfaction [51]. Similarly, Soonhee et al. found that greater social assistance influences greater life satisfaction among older adults [52], while Cowlishaw et al. concluded that social support is not the basis for spirituality and life satisfaction [53]. Momeni and Rafiee, who found a significant connection between religion and life satisfaction in a study among older adults, are of the opposite opinion [54].

Through our research, we also found that the self-esteem index is more strongly related to life satisfaction within the spiritual factor.

Self-esteem is a psychological and positive perception of an individual, which depends on social support and functional independence, as well as on gender and age. Greater functional independence leads to a greater quality and satisfaction with life, which authors Moral-García et al. found among older adults [55]. Van Leeuwen et al. analysed 48 qualitative studies involving older adults living at home and examining life satisfaction [56]. Using a qualitative analysis, they identified nine domains that influence life satisfaction, including spirituality. They found that spirituality helps older adults accept disability or emotional distress, cope with change, and experience life satisfaction. For some older adults, age means spiritual growth.

Older adults, who are transferred to long-term care institutions, may experience anxiety, depression, and low self-esteem due to the change in their living environment [57]. Authors also state that low self-esteem leads to depression. The holistic model for ensuring life satisfaction is a multidimensional concept that includes physical, psychological, social and spiritual factors. Factors intertwine and affect the older adult as a whole being [1].

Limitation of research

The research has several limitations. Not all the indices we studied were created on the basis of methodologically verified constructs, so it makes sense to use all standardised and previously validated measuring instruments to create an individual index for the reproducibility of the research in the future. The measuring instrument was extensive in terms of content (116 variables) and relatively complex and demanding to complete. Due to the worse health and functional condition of older adults, the realisation of the sample in the institutional environment was lower. Some questions were found to be more difficult to comprehend and so required additional explanation due to the respondents not understanding them. As a result, a large number of answers were missing from respondents who completed the questionnaire themselves. The sample was also not representative of the number of older adults. As the analysis was done on a balanced study design, the results can be generalised to the population of older adults.

CONCLUSIONS

Physical, psychological, social and spiritual factors are all connected to life satisfaction; their strength of relationship, however, varies. These factors are intertwined and affect the quality of life of older adults. We have developed a holistic model for ensuring life satisfaction in old age, which confirms that older adults need to be treated holistically, according to their bio-psycho-social needs, whereby the old person's symbolic environment is important, which is represented by the spiritual factor. Upon reviewing the existing literature, we can affirm that in the European space we have not discovered a holistic model for ensuring life satisfaction in old age that would unite all four holistic factors. With our model, we prove that more attention will have to be paid to the holistic treatment of older adults, as ageing and old age are being experienced in different ways. Despite the fact that the sample is not representative, based on the analysis, the results of the survey can be generalized to the population of older adults, as the analysis was made on balanced data.

The main finding of our research is that the spiritual factor among the holistic factors in older adults is most strongly related to life satisfaction and within it, the self-esteem index. As spirituality is a multidimensional concept, our research is an important starting point for further in-depth research.

Conflict of interest

The authors of the paper declare that there is no conflict of interest.

Research ethics

The research was prepared in accordance with the principles of the Helsinki Declaration [58] and in accordance with the Code of Ethics in Nursing and Care of Slovenia [59].

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