THE ROLE OF PSYCHOSOCIAL FACTORS IN SELF-RATED SUCCESSFUL AGING IN A SAMPLE OF LITHUANIAN ELDERLY PEOPLE

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Abstract. Background and purpose. Successful aging has been one of the most popular concepts in the gerontological literature over the last few years. At present, there is no universally accepted definition of what the term “successful aging” means, and which factors are associated with it. This study aimed to assess the role of psychological and social factors in self-rated successful aging in older adults. Methods. 396 older adults participated in this study. The mean age of the respondents was 67.1 ± 5.8 (age range 60–84). Data was collected using Self-Rated Successful Aging Scale (Gwee et al., 2014); Rapid Assessment of Physical Activity (Topolski et al., 2006); Scale of Activity and Psychological Well-Being in Older People (Warr et al., 2004); A Short Scale for Measuring Social Support in the Elderly (Kempen, Eijk, 1995); Geriatric Spiritual Well-Being Scale (Dunn, 2008); The Satisfaction With Life Scale (Diener, Emmons, Larsen, Griffin, 1985); Subjective Age Identity Scale (Hubley, 2014). Results. Older adults characterized as more subjective successful agers had a significantly higher level of social and physical activity, social support, life satisfaction, happiness, spirituality, satisfaction with the living standards, younger subjective age identity and better self-rated health. Better self-rated health, younger subjective age identity, higher level of life satisfaction, intellectual social activity and learning, better subjective eating habits, higher number of grandchildren and having a job were the best independent predictive factors of self-rated successful aging. Conclusions. The best predictive factors (social) of self-rated successful aging were higher level of intellectual social activity and learning, having a job and higher number of grandchildren; the best predictive factors (psychological) of self-rated successful aging were higher level of life satisfaction, younger subjective age identity, better self-rated health and eating habits.

Keywords: aged, successful aging, older age, multidimensional approach.

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INTRODUCTION

Around the 1960s, the population of the world experienced a period of rapid ageing. Demographic changes led to increasingly sophisticated medical devices, improving nutritional and sanitary conditions, declining mortality and fertility rate (Ageing in the Twenty-First Century, 2012). In the developed countries, this process has already been going on for decades, while in the developing world it is a relatively new phenomenon. Currently, 12 percent of the world’s population is older than 60 years. It is estimated that by 2050 this number will reach 21 percent (United Nations, 2013). Lithuania is also observed in the aging population. In early 2016, people aged 60 and older represented 24.92 percent (Lithuanian Department of Statistics, 2015) of the total population. The European Commission predicts that over the next few decades the number of older persons will increase even more, while the proportion of young and working-age population will decrease (European Commission, 2015). Changes occur with aging, elderly people experience difficulties that have negative effect on them; this has long encouraged the gerontological research to place greater emphasis on negative aspects of aging (Fernandez-Ballesteros, 2011). Recently, this approach has been under attack and is considered to be risky; for this reason, more studies that analyze successful aging factors are needed. The aim is to achieve a more realistic and comprehensive understanding of old age, and to eliminate negative stereotypes and their consequences for individuals and society (Fernandez-Ballesteros, 2011). Thus, the increasing number of retirement-age population has resulted in greater focus on the person’s psychological, social and physical well-being, and in the efforts to facilitate the older people’s aging in a healthier and more successful manner.

Criteria of Successful Aging

The interest in successful aging phenomena peaked after the publication of research by Rowe and Kahn in 1987. The authors identified three criteria for successful aging - low risk of illness and disability; high cognitive and physical functioning; active engagement (Rowe, Kahn, 1997). Over the last 30 years, numerous studies have been done on this
topic in an attempt to understand the phenomenon and to define the criteria for successful aging. But until now this topic has remained dominated by many contradictions and ambiguities.

At the given moment there is no consensus on what constitutes successful aging and how to define this concept. Different authors choose to analyze and involve different criteria. Hence, what is or is not successful aging remains a contentious issue. The first theories described successful aging as a universal phenomenon and held that the aging of each person is understood identically. However, due to the increasing number of research, the perspective has shifted, and now successful aging is seen as a lifelong process composed of different areas, while each person is perceived individually (Jopp et al., 2015). Whether or not a person is aging successfully is determined on the basis of operationalization. In research, successful aging is defined by one or multiple criteria, such as life satisfaction (Gureje, Oladeji, Abiona & Chatterji, 2014) or happiness (Villar, 2015); chronic disease and absence of disability; active involvement in social activities (Fernández-Ballesteros et al., 2011; Carr, Weir, D. Azar, N. R. Azar, 2013); and self-rated health evaluation as healthy, relatively healthy or completely healthy (Li et al., 2014). In some cases, there are more criteria based on previous studies according to which people are divided into successful and unsuccessful agers; others include people’s own opinions expressed after being asked with what they associate successful ageing.

In addition, there are some cultural differences in the evaluation of success, i.e., how an individual perceives and assesses his or her personal health, what is important in life and what aging successfully means. Eastern cultures put more emphasis on family ties and spiritual values than on financial stability, while the latter is important in Western cultures (Jopp et al., 2015). However, due to the differences in operationalization of successful aging, it is difficult to generalize the results and to compare them with those in other countries. However, one of the cross-cultural comparative studies of successful aging has notably examined the variation in the number of successful agers by using the same operationalization concept of successful aging, i.e., based on biomedical criteria provided by Rowe and Kahn (Hank, 2011). The category of a country’s prosperity also included the participants’ income and education. The study involved 14 European countries (Austria, Germany,
Sweden, Denmark, Poland and others) and Israel. It was found that aging is more successful for people who are younger, have higher education, and are male. Furthermore, the results showed differences between countries, for example, only one in fifty Poles achieves the criteria of successful aging, while in Denmark, one in five Danes does. In the countries with better living conditions or higher welfare rates, such as Denmark, Sweden, or the Netherlands, the percentage of successfully aging people is higher compared with countries in which the level of prosperity is lower, for example, Poland and the Czech Republic. However, according to Rowe and Kahn, the operationalization of the concept of successful aging in this study is quite limited and overly medical. A definition of successful aging which emphasizes only the perception of successful aging is limited. The concept of successful aging should be well defined and operationalized so that persons with illnesses or various disabilities and the elderly would have the possibility to be included in a successful aging group (Cosco et al., 2013; Araujo, Ribeiro, Teixeira, Paul, 2015). It is appropriate to assess what aging means for older people, how they understand the success, and identify the most important aspects related to the “success” (Fagerstrom, Aarsten, 2013). Recently, medical definitions of successful aging have been expanded to include psychosocial factors (Cosco, 2015). Natural, age-related changes are influenced by other factors, such as diet, activity, personal habits, such as smoking, social support, happiness etc. Deeper understanding of psychosocial factors in relation to self-rated successful aging would help to identify modifiable factors in an individual’s behaviour or environment. There is also the question of whether the criteria selected by the researchers can be reconciled with the self-rated successful aging by the elderly? Thus there is the need for analysis of scientific literature and quantitative research which would complement the previous qualitative studies (Jankunaitė, Naujaniene, 2012; Mockus, Zukaitė, 2012; Mockus, Sondaite, Butenaite, 2013) that have involved self-rated successful aging (Jeste et al., 2013). In this research, successful aging is defined by each person’s individually experienced process, involving perceived physical, psychological and social well-being (Fagerstrom, Aarsten, 2013; Martin et al., 2014; Peterson, Martin, 2015). Nevertheless, the study’s main focus is on the psychological and social factors.
Factors Related to Successful Aging

A review of scientific literature has revealed that the concept of successful aging is usually understood as multidimensional and includes a variety of factors (Jopp et al., 2015). Most older adults also believe that successful aging consists of various aspects (Phelan et al., 2004; Iwamasa, Iwasaki, 2011). Though the aspects most commonly studied in literature are physical (Jopp et al., 2015), it was also found that successful aging is related to other factors: subjective mental health (Jopp et al., 2015), health-related behaviour - smoking, alcohol consumption, physical activity, diet (Parslow et al., 2011; Jopp et al., 2015), cognitive skills, education, income, lifestyle (Parslow et al., 2011; Jopp et al., 2015), communication with family members, friends, neighbours and other people (Olesen, Berry, 2011), social activity (volunteering, religious practices, learning, interest in politics, current events and so on).

Cosco et al. (2014) have carried out an analysis of various scientific articles dividing the components into three areas: biomedical (physical functioning, chronic illness, disability, cognitive functioning, longevity), psychosocial (personal resources, social activity, life satisfaction, well-being, autonomy), and additional factors (the environment, finances). Most of the articles are based on the biomedical criteria, and three of the most significant ones are presented by Rowe and Kahn - high physical and cognitive functioning and low probability of diseases and disabilities. In such cases, the researchers focus on physical factors, while psychological and social aspects become less important. However, successful aging is a complex phenomenon influenced by many different factors – physical, social, psychological etc. – and it covers both positive and negative experiences of older people and a subjective evaluation of successful aging (Martin, Kelly, Kahana, 2014; Fagerstrom, Aarsten, 2013; Peterson, Martin, 2015).

Successful aging research has been conducted in North America and Eastern Europe, but the Baltic countries, including Lithuania, receive less attention (Cosco et al., 2014). There has been only one qualitative study in Lithuania (Jankunaite, Naujaniene, 2012), which examined the experience and perception of successful aging by seven people aged from 68 to 74 years. The preconditions of successful aging were identified: material wealth, which is important as it gives older people a sense
of security and satisfaction with life; good health, which helps them to maintain independence and allows to engage in various activities; maintenance of social relations, which reduces the feeling of loneliness; and social activity, which provides enjoyment, satisfaction with life, and helps to maintain health. Therefore, physical and psychosocial kinds of well-being are both important for older people.

In various countries of the world, a number of trials have been carried out to determine which factors are related to or predict successful aging. The question is, on what grounds would it be important to examine the relationship between successful aging and psychological and social factors? First, an overview of the scientific research does not explicitly affirm which psychosocial factors are associated with successful aging. Second, the relations of psychological and social factors to successful aging often vary in different countries, therefore, research in every culture is required to be conducted in order to gain a more detailed understanding of successful aging (Cosco et al., 2014; Villar, 2015; Araujo et al., 2015). Finally, many studies concerning successful aging do not precisely involve self-rated successful aging and its connection to psychosocial factors. Other age groups are also tested, i.e., persons much younger than 60 years old. Different research methods are used, and in some studies, the same factors are defined as successful aging results, and in other cases are described as processes (Cosco, 2015). Because of a discovered inconsistency between the evaluation of successful aging by older adults and the criteria defined by the authors, further research is needed in order to determine which factors are associated with self-rated successful aging and to predict them so that later these factors could be supported.

Literature analysis has revealed numerous contradictions in the studies of successful aging. Separate successful aging factors were analyzed focusing on biomedical indicators for a long time. However, a growing scientific interest in successful aging phenomena and more detailed research revealed that successful aging consists of more than one specific aspect. While they have been frequently criticized, the successful aging criteria presented by Rowe and Kahn are the most frequently discussed in scientific literature. However, other researchers try to improve and expand Rowe and Kahn’s model, including not only health and social factors, but also psychological ones.
Based on studies, successful aging models and the prevailing theories, it can be noted that successful agers most often are perceived as healthy, active and satisfied with life (or happy). On the other hand, there is no consensus on the definition of successful aging. Lately older adults have been asked to evaluate their successful aging and inquired about the health, social and psychological indicators that are the most related to their successful aging. For this reason, the purpose of the current study was to assess the role of psychological and social factors in self-rated successful aging in older adults.

**METHOD**

**Participants and procedure**

The study involved 396 respondents from senior associations, societies and organizations such as Third Age Universities in Kaunas, Ignalina, Marijampolė, Jonava and Birštonas towns. The return rate from this sample was 94.3%. The mean age of the respondents was 67.1 ± 5.8 (between the ages of 60 and 84). 308 (77.8%) women and 88 (22.2%) men were interviewed. The majority of the respondents had a higher education (70%) and were unemployed (70.2%). Slightly more than a half (54.8%) of the participants were married or living with a partner.

The survey was conducted from January to March in 2016. The respondents were sampled using the convenience sampling method. Questionnaires were self-administered, followed by the explanation about the purpose of research, completion of instructions and assurance of confidentiality. The participants filled out the questionnaires after lectures and seminars conducted in the organizations and associations or at home.

**Measures**

**Self-Rated Successful Aging.** Participants were asked to rate their own degree of successful aging on a scale from 1 to 10 (1 – least successful, 10 – most successful). A higher score means higher self-rated successful aging. In this work, those who rated themselves 7 or higher are referred to as subjectively more successful agers, while those who gave themselves a rating of less than 7 are deemed to be subjectively less successful agers.
Rapid Assessment of Physical Activity (RAPA) (Topolski et al., 2006). The questionnaire was designed to measure physical activity levels from sedentary to regular vigorous physical activity among adults older than 50 years. It is a nine-item questionnaire with the response options of yes or no. The total score of the first seven items is from 1 to 7 points, with the respondent’s score categorized into one of five levels of physical activity: 1 = sedentary, 2 = underactive, 3 = regular underactive (light activities), 4 = regular underactive, and 5 = regular active. The RAPA could be used without the authors’ permission.

Scale of Activity and Psychological Well-Being in Older People (Warr, Butcher, Robertson, 2004). Participants were asked to indicate how often they take part in the following activities, with six responses (0 – Never, 1 – Occasionally (about once a month or less often), 2 – Quite often (about once a fortnight), 3 – Often (about once a week), 4 – Very often (about two to four times a week) and 5 – Extremely often (more than four times a week). Activities: Family and Social; Church and Charity; Home and Garden; Reflection and Learning; Music and Drama; Sports. Mean frequency of the activities was computed and the number of activities done by the person was examined. In this study, Cronbach alpha of this scale was .770. Permission to use and translate this scale was obtained from the author.

A Short Scale for Measuring Social Support in the Elderly (SS12-I) (Kempen, Van Eijk, 1995). SSL12-I is a scale designed to assess the level of social support. It consists of 12 items divided into three subscales with four items each: social support in problem situations, esteem support, and everyday support. SSL12-I was developed using a four-point Likert scale from 1 = “seldom or never” to 4 = “very often”. Higher scores mean higher level of social support. In this study, Cronbach alpha of the total scale was .889. Permission to use and translate this scale was obtained from the author.

The Satisfaction with Life Scale (Diener et al., 1985). This scale is a 5-item instrument developed to assess people’s global cognitive judgments of satisfaction with life. The respondents indicate how much they agree or disagree with each item on a 7-point scale (ranging from 1 – strongly disagree to 7 – strongly agree). Higher scores represent higher satisfaction with life. The scale can be used without permission. In this study, Cronbach alpha of the total scale was .884.
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Subjective Age Identity Scale (Hubley, 2014). This scale is a 5-item instrument designed to evaluate how old the older adults typically feel. Physical, social, mental, outward, and ideal age was measured by asking them whether they felt (1) much younger, (2) somewhat younger, (3) about the same, (4) somewhat older, or (5) much older than their chronological age in each of these areas. The items were combined into a single mean score on the Subjective Age Scale. Higher score means older subjective age. In this study, Cronbach alpha of the total scale was .904. Permission to use and translate this scale was obtained.

Geriatric Spiritual Well-Being Scale (Dunn, 2008). This scale is designed to assess the spiritual well-being of older adults. It consists of 16 items divided into four subscales with four items each: affirmative self-appraisal, connectedness, altruistic benevolence, and faith pathways. Geriatric Spiritual Well-Being Scale was developed using a six-point Likert scale with responses ranging from 1 = “strongly disagree” to 6 = “strongly agree”. Consequently, higher scores reflect a higher level of spiritual well-being. Two subscales were used in this research: affirmative self-appraisal and faith pathways. In this study, Cronbach alpha of the total scale was .818. Permission to use and translate this scale was obtained.

The questionnaire also included queries about sociodemographic factors, chronic diseases, disability, visits to the doctor per year, self-rated health, health behaviours (alcohol consumption, smoking and eating habits), happiness and satisfaction with the living standards.

Descriptive statistics were used to describe the sample of this study and to assess the role of psychological and social factors in self-rated successful aging in older adults. Binary Logistic Regression analysis was used to evaluate the influential factors of self-rated successful ageing. Student’s T-test was used for the comparison of two independent groups. $\chi^2$ criterion was also used to determine differences between distinct factors. Data was analysed using IBM SPSS Statistics 23.

RESULTS

Prevalence of Self-Rated Ageing

The mean score of self-rated successful ageing was 7 (SD = 2.3). 274 (69.2 %) of the respondents scored 7 or more. The respondents were divided into two groups based on the score of their perception.
of successful aging: 1) persons who scored ≥7 were regarded as more successfully ageing respondents; 2) respondents who scored <7 were considered to be not so successfully ageing. 247 (69.2 %) respondents were assigned to group 1, and 122 (30.8 %) to group 2.

Most of the older people who self-rated themselves as successfully ageing live in Marijampolė (20.46 %); have lower than higher education (about 42 %); are not single, i.e. are married or live with a partner (about 38 %). A greater part of older adults in group 1 have one or two chronic diseases (about 42 %), and around 15 % of those in group 1 have disabilities. According to the self-rated health evaluation, 38.39 % of subjectively successfully ageing older adults see themselves as not very healthy.

**Social and Psychological Predictors of Subjectively (Self-Rated) Successful Ageing**

In order to assess the prognostic value of social and psychological variables towards successful ageing, a binary logistic regression model was composed. The model included the following social variables: social support, social activity, paid work, satisfaction with personal level of financial situation, spirituality, perceived age, satisfaction with life, self-rated health, physical activity, smoking and alcohol consumption. The model included sociodemographic variables as well (age, sex, marital status, education, place of residence, number of children and grandchildren).

The variable *happiness* was excluded from the model due to multicollinearity with subjective successful ageing.

Subjective successful ageing as the dependent variable in the logistic regression model was coded 0 – less successful ageing, 1 – more successful ageing. The model was finalised after excluding the statistically insignificant variables (table 1).

The final regression model is statistically significant ($\chi^2$ (11) 114,475, p<0.001). Cox-Snell $R^2 = 0.267$, Nagelkerke $R^2 = 0.377$. Cook’s value <1. Hosmer-Lemeshow’s goodness-of-fit test ($\chi^2$ (8) 10.801, p = 0.213) shows the model’s compatibility with the data. Prediction accuracy is 78.9 %. Prediction accuracy of subjectively more or less successful ageing was 53.1 % and 90.2 %, respectively.
Table 1. Relationship between subjectively successful ageing and psychosocial variables

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>p</th>
<th>OR</th>
<th>95% CI</th>
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<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td>Lower</td>
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<tr>
<td>Greater satisfaction with life</td>
<td>0.066</td>
<td>0.027</td>
<td>5.753</td>
<td>0.016</td>
<td>1.068</td>
<td>1.012</td>
</tr>
<tr>
<td>Perceived age</td>
<td>-0.078</td>
<td>0.032</td>
<td>6.117</td>
<td>0.013</td>
<td>0.925</td>
<td>0.870</td>
</tr>
<tr>
<td>Greater satisfaction with economical situation</td>
<td>0.051</td>
<td>0.036</td>
<td>1.959</td>
<td>0.162</td>
<td>1.052</td>
<td>0.980</td>
</tr>
<tr>
<td><strong>Health-related nutrition</strong> (0 – not healthy)</td>
<td>12.397</td>
<td></td>
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<tr>
<td>healthy (1)</td>
<td>1.110</td>
<td>0.482</td>
<td>5.303</td>
<td>0.021</td>
<td>3.036</td>
<td>1.180</td>
</tr>
<tr>
<td>Partially healthy (2)</td>
<td>0.912</td>
<td>0.449</td>
<td>4.123</td>
<td>0.042</td>
<td>2.489</td>
<td>1.032</td>
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<tr>
<td>Partially unhealthy (3)</td>
<td>-0.342</td>
<td>0.574</td>
<td>0.356</td>
<td>0.551</td>
<td>0.710</td>
<td>0.231</td>
</tr>
<tr>
<td>Greater number of grandchildren</td>
<td>0.161</td>
<td>0.079</td>
<td>4.108</td>
<td>0.043</td>
<td>1.174</td>
<td>1.005</td>
</tr>
<tr>
<td><strong>Employment</strong> (0 – not employed)</td>
<td>0.815</td>
<td>0.332</td>
<td>6.016</td>
<td>0.014</td>
<td>2.260</td>
<td>1.178</td>
</tr>
<tr>
<td>Smaller cities (0 - larger)</td>
<td>-0.350</td>
<td>0.288</td>
<td>1.478</td>
<td>0.224</td>
<td>0.705</td>
<td>0.401</td>
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<tr>
<td><strong>Not quite healthy/ill</strong> (0– very good health/ good health/ healthy)</td>
<td>-0.701</td>
<td>0.347</td>
<td>4.085</td>
<td>0.043</td>
<td>0.496</td>
<td>0.251</td>
</tr>
<tr>
<td>More often engaged in intellectual activities and learning</td>
<td>0.097</td>
<td>0.043</td>
<td>5.004</td>
<td>0.025</td>
<td>1.102</td>
<td>1.012</td>
</tr>
<tr>
<td>Constanta</td>
<td>-1.457</td>
<td>1.103</td>
<td>1.744</td>
<td>0.187</td>
<td>0.233</td>
<td></td>
</tr>
</tbody>
</table>

B – regression coefficient; SE – standard error; OR – odds ratio; CI – confidence intervals.

Differences in the evaluations of life satisfaction, subjective age identity, healthier eating habits, as well as in the number of grandchildren, employment status, self-rated health, intellectual activity and the learning coefficients are statistically significant (p<α), i.e. these variables help to separate the older adults who are subjectively ageing in a more successful and not so successful manner. Hence, as life satisfaction increases, chances of subjectively successful ageing increase 1.068 times and, with greater number of grandchildren, 1.174 times. Employed respondents likewise have 2.260 times greater chances of subjective successful ageing. Worse self-rated health decreases subjective successful ageing 0.496 times, and when a person feels older than his chronological age, chances of subjective successful ageing are also diminished. Older adults
who evaluate their eating habits as healthy or partly healthy and are involved in intellectual activity or learning more often, i. e. read books, take courses or other learning related classes, go to the library, cinema, concerts, museums etc., have greater chances of subjective successful ageing.

**DISCUSSION**

There are some variations regarding successful ageing in the literature. Some researchers consider the score of successful ageing to be no less than 7 (Hank, 2011), while others do not imply any specific criteria at all (Jeste et al., 2013; Gwee et al., 2014). Research findings suggest that successfully ageing (scoring 7+) senior respondents make up from 60 to 92 % (Jeste et al., 2013; Martin et al., 2014). Based on literature analysis, we considered 7+ to be the lowest score for perceived successful ageing.

We found that older adults who even have disabilities or one or several chronic diseases perceive their ageing as more successful. Similar tendencies were also shown in other studies (Nosraty et al., 2012; Martin et al., 2014; Katz, Calasanti, 2015).

Literature analysis revealed that it is not possible to unambiguously specify which factors are the cause of successful ageing and which are the result. For example, self-rated health, happiness and the level of life satisfaction in some cases are considered to be the criteria of successful ageing, and in other cases they are seen as prognostic factors. Subjectively (self-rated) successful ageing in this study was chosen as a factor of successful ageing because of the prevalent contradictions in the scientific literature concerning the definition of successful ageing and its constituting factors. Therefore, older adults were able to reflect what success meant to them and to evaluate their success in ageing. We also aimed to determine the social and psychological factors that affect subjectively successful ageing the most.

Logistic regression analysis showed that, out of all socioeconomic variables, only being occupied and having more grandchildren predicted subjectively more successful ageing. Having more grandchildren might be related to retaining closer social relationships and receiving more social support (Olesen, Berry, 2011), which is very important in older age and is related to the experienced feeling of happiness (Nosraty et al.,
2012; Cho et al., 2015). Bordone and Arpino (2015) found that women of older age who had more grandchildren felt younger than their actual age and more needed in the family. Being employed could be related to higher levels of individual standards of living, probably because employed people of older age are usually more active, receive more social support and are therefore more satisfied with life (Gustainienė, Banevičienė, 2014).

Contrary to other findings, gender, age, marital status, education, and the number of children did not predict self-rated successful ageing (Nosraty et al., 2012; Jeste et al., 2013; Dahany et al., 2014; Gureje et al., 2014). Some researchers did not reveal any significant relationship between sociodemographic factors and successful ageing (Pruchno et al., 2010; Araujo et al., 2015). These variations in findings might be due to the variations in selected criteria, cultural differences as well as disparities in the distribution of respondents by age and sex. On the other hand, one may claim that such sociodemographic variables as age, sex, marital status, etc. are not equally important in predicting self-rated successful ageing.

Research studies as well as political documents often stress the importance of social activity and social support for people of older age (WHO, 2002; Nakahara, 2013; Sims et al., 2014; Wolff et al., 2014). Our findings are a bit surprising in this respect because no relationship between successful ageing and social activity and social support was observed. Logistic regression results revealed only intellectual activity and learning to be related to self-rated positive ageing. Other findings also confirm the importance of learning in older age (Miežytė-Tijūšienė, Bulotaitė, 2012; Tam, 2014). Learning as well as other intellectual activities induce cognitive stimulation and help a person maintain his/her productive functioning, maintaining mental and social skills. It is obvious that lifelong learning in older age is essential.

Inconsistency of the present findings and other studies demonstrating the relationship between social support and social activity (Howie et al., 2014; Wolff et al., 2014; Araujo et al., 2015) can be explained by disengagement (Henry, 1965) and socioemotional selectivity (Carstensen et al., 2003) as well as by the model of Baltes and Baltes (1990). According to disengagement theory, older people are naturally less active than, for instance, middle-aged ones, and this is not necessarily negatively related
to successful ageing. According to Baltes and Baltes model, we can assume that in older age people reduce the number of their activities and maintain only those which they find meaningful and the most important for them. Therefore, further research should include not the number of activities but rather the satisfaction with these activities.

The present findings are in line with research by Fernandez-Ballesteros et al. (2011) where social activity and social support vaguely predicted successful ageing. It is believed that social support raises tension, causes stress, the feeling of dependence on others and doubt in one’s value for some older adults. Some older adults, especially those who are physically disabled, feel uncomfortable when they are not able to support others in the same way as they are supported (Fernandez-Ballesteros et al., 2011). Moreover, older people at times receive support that at the given moment is not as important or required and is not necessarily fulfilling for them, and it even may have a negative affect (Sims et al., 2014). The frequency of the received support was assessed in this research; however, according to the socioemotional selectivity theory (Carstensen et al., 2003), older adults interact less frequently and maintain fewer relationships with people who are not very close to them, and the quality of the relationships and the support becomes more significant. Therefore, future studies should take into consideration the frequency of the received support and the satisfaction with it.

In this study, psychological factors that predict subjective successful ageing were better life satisfaction, younger subjective age identity, better self-rated health, and better subjective eating habits. It is evident that older adults’ health is connected to more successful subjective ageing. Better self-rated health may influence a person’s activeness (Mockutė, 2012; Jankūnaitė, Naujanienė, 2012) and life satisfaction (Hsu, 2015). However, study results indicate that a lot of older adults who consider themselves to be not quite healthy or ill subjectively are more successful agers. Health is only one of the ageing aspects and its lack can be compensated by other psychosocial factors (Baltes, Baltes, 1990). Higher level of life satisfaction for older adults may be a protective element, facilitating health care and reducing chances of depression (Fernandez-Ballesteros et al., 2011; Hsu, 2015). Younger subjective age identity is one of coping strategies among older adults that contribute to better adjustment to the changes of physical health. Other studies suggest that
younger subjective age identity is connected to better self-rated health, higher levels of social activity and overall sense of happiness (Wurm et al., 2013; Choi et al., 2014).

Subjective successful ageing was not predicted by higher spirituality or by higher satisfaction with the living standards. Previous research also indicates no relationship between subjective successful ageing and financial status (Cho et al., 2015) or spirituality (Vahia et al., 2011). In this study, we may predicate that other psychosocial factors have had a significant effect on subjective successful ageing among older adults. According to Baltes and Baltes (1990) model, older adults who are not financially secure seek opportunities to compensate it. Spirituality may be simply perceived as a way which does not necessarily promote successful ageing.

Out of all the health-related factors that were included in this study, only better subjective eating habits had predictive value to subjective successful ageing. Tyrovolas et al. (2014) also found a relation between better subjective eating habits and subjective successful ageing. Authors state that older adults who have healthier eating habits live in larger cities, have higher education and more information about the importance of a healthy diet. Accordingly, promotion of healthy eating habits among older adults, in accordance with recommendations of the World Health Organization, may improve prevention of non-infectious diseases, e. g., cardiovascular disease, diabetes. On the other hand, merely one question was present in this study concerning a person's subjective opinion about healthy eating habits and more detailed (including objective rates) research is needed.

**Limitations and Implications for Future Research**

A few limitations that might have influenced the results should be mentioned. First, non-representative sample of participants prevented the results from being generalized. Second, most of the participants were active people from the Third Age University and members of various artistic and seniors’ associations that potentially had influenced the results. Nevertheless, about 30 % of older adults were subjectively not so successful at ageing and that is why certain comparisons among subjectively more and less successfully ageing participants were possible.
Certainly, larger sample size would be an advantage. Furthermore, most of the participants were women and adults younger than 70 years old. Including more men and adults older than 85 is necessary. Finally, the study was based on the respondents’ subjective responses and no objective factors were included, e.g., evaluation of older adults’ physical and cognitive functions, which may be considered in future studies. Regardless of limitations, the study results exposed the importance of psychological and social factors to subjective successful ageing. Additionally, this study may contribute to further and more detailed, e.g., longitudinal, studies on the subject of successful ageing.

REFERENCES


Santrauka. Mokslinė problema. Pastaruoju metu daugėjo mokslininkų pamačiusius, kad senatvė ir sėkmingas senėjimas yra dažnai diskutuojamų temas, tačiau dauguma jų aptarė tik vieną manęs, be žinių apie kitas svarbiosios sėkmingos senėjimo veiksnio. Pirmiausiai, pastaruoju metu daugėjo mokslininkų, kurių tikėjosi, jog sėkmingas senėjimas yra galutinio vertinimo aplinkybės, kurias turėtų turėti ne tik socialinės, bet ir psichologinės sritys. Tikslas - nustatyti, kaip socialinės ir psichologinės veiksnio yra susijusios su sėkminga senėjimo aplinką.

Metodika. Tyrimo metu dalyvavo 396 respondentai (308 moterys ir 88 vyrai), gyvenantys Ignalinos, Jonavos, Birštono, Marijampolės ir Kauno miestuose. Tyrimo metu buvo naudojami tik atsižvelgiant į augalų ir gyvūnų. Atsakymus analizavo metodus, sukuriantys atitinkamus tyrimo metu.