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SOCIAL PARTICIPATION OF ONCOLOGY PATIENTS OVER 60 YEARS OF AGE

SOCIJALNA PARTICIPACIJA ONKOLOŠKIH PACIJENATA STARIJIH OD ŠEZDESET GODINA

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Summary

Introduction. Social participation is a critically important aspect of life in older adults. Also, it is one of the major subjects of research in the field of aging. Old age and its implications can have both positive and negative effects on social participation in the elderly population. Older oncology patients also face additional challenges in achieving active aging and full social participation. The goal of this study was to establish the prevalence and variety of social participation of oncology patients over the age of 60, as well as to determine any possible correlation between specific demographic characteristics and social participation. **Material and Methods.** The study included 100 persons aged 60 to 92 treated for malignant diseases. The Maastricht social participation profile and a demographic questionnaire designed for the purpose of this study were used as research instruments. Data analysis included the t-test for independent samples, correlation analysis, linear regression analysis, and one way analysis of variance. **Results.** Persons over the age of sixty have a low level of social participation, particularly in the domains of contacts with friends and family. A statistically significant difference was found in social participation in regard to different demographic characteristics: type of residence ($t = 6.765, p < .01$) and disability ($t = 5.663, p < .01$), and age ($R = 0.478, p < .01$). There were no statistically significant differences in regard to gender, education and presence/absence of chronic disease. **Conclusion.** Oncology patients over the age of 60 have a very low social participation. Considering its importance for health and quality of life in the elderly, it is crucial to develop a support system for these persons and to recognize the significance of including social support in the care of this population.

Key words: Social Participation; Patients; Medical Oncology; Aging; Aged; Demography

Introduction

Old age is a period of life when biological, psychological and social potentials are in constant decline. The elderly are a vulnerable population group whose needs are highly specific, varied and complex. While the aged population is growing, the life expectancy is getting higher [1].

Sažetak

Uvod. Socijalna participacija predstavlja veoma važan aspekt života starih osoba. Takođe, predstavlja jednu od centralnih tema u istraživanjima starenja. Starost kao i druge implikacije kod ove populacije mogu ostavljati i pozitivne i negativne efekte na socijalnu participaciju. Stare osobe koje su i onkološki pacijenti imaju dodatne izazove u procesu dostizanja aktivnog starenja i pune socijalne participacije. Cilj ovog istraživanja bio je da se odredi učestalost i raznolikost socijalne participacije osoba starijih od šezdeset godina koje su onkološki pacijenti, kao i da se utvrdi povezanost između određenih sociodemografskih karakteristika i socijalne participacije ovih osoba. **Materijal i metode.** Istraživanje je obuhvatilo 100 osoba starosti od 60 do 92 godine koji su lečeni od malignih tumora. Korišćeni su instrumenti *Maastricht* profil socijalne participacije i sociodemografski upitnik koji je konstruisan u svrhu ovog istraživanja. Da bi se dobili odgovori na postavljene ciljeve sproveden je t-test za nezavisne uzorke, korelaciona analiza, linearna regresiona analiza i jednosmerna analiza varijanse. **Rezultati.** Osobe starije od šezdeset godina imaju nizak nivo socijalne participacije, a posebno niski rezultati su u domenima kontakta sa prijateljima i kontakta sa porodicom. Postoji statistički značajna razlika u izraženosti socijalne participacije u odnosu na različite sociodemografske karakteristike: mesto stanovanja ($t = 6.765, p < .01$), invaliditet ($t = 5.663, p < .01$), starost ($R = 0.478, p < .01$). Ne postoji statistički značajna razlika u odnosu na pol, obrazovanje i prisustvo/odsustvo hronične bolesti. **Zaključak.** Onkološki pacijenti stariji od 60 godina imaju veoma nisku socijalnu participaciju. Imajući u vidu njen značaj za zdravlje i kvalitet života starih osoba, neophodno je razviti sistem podrške ovim osobama i prepoznati uključivanje i podršku zajednice kao važnu komponentu usluga i podrške ovoj populaciji.

Ključne reči: socijalna participacija; pacijenti; onkologija; starenje; osobe starije životne dobi; demografija

Aging, old age, quality of life, and life of the elderly in general, are topics that draw attention of professionals of different profiles, as well as of the general population worldwide, particularly in the last few years [2]. The increasing percentage of older adults in the general population requires from the social community to recognize their needs and provide adequate support [2, 3].

Abbreviations

MSPP – Maastricht Social Participation Profile

The World Health Organization defines old age as the age of 60 years and over and divides it into three groups: elderly persons (60 to 75 years of age), old persons (76 to 90) and very old persons (over 90 years of age) [4].

Demographically, Serbia is an “old country” by all conventional criteria of population aging [5]. According to the estimates made in 2017, by the State Institute for Statistics of the Republic of Serbia, the percentage of people aged 65 and over in the total population was 19.6% [6]. The reasons for increased proportion of the elderly in general population in the recent years are numerous. The proportion of the young in the general population has been reduced by half, while the proportion of the elderly has increased more than threefold. Among other factors, the increase is due to higher life expectancy, influenced by recent advances in medicine, particularly prevention and treatment, leading to a drop in mortality rate [7].

Active aging is a more recent term that gained a significant amount of scientific and professional publicity in a short amount of time [5]. It is defined as a process of taking full advantage of health possibilities, participation and safety in order to enhance quality of life in the process of aging [8].

Active aging allows individuals to continuously take part in social, cultural and economic activities according to their needs and possibilities, while being provided with adequate support and care. The main idea in this concept is that persons can be active participants in the life of their families, as well as the society, despite the existing cognitive, physical or other difficulties that often accompany old age [9]. Namely, the word “active” has its social, cultural, economic, civil and spiritual aspects and means a lot more than just physical activity. It takes into account the social participation of persons with disabilities or chronic diseases who, despite their impairment, can contribute to their families, the local community and beyond [10].

Michael et al. describe active aging as a desire and ability of older adults to integrate physical activity, such as walking to public transportation or exercising, into their daily routine. They also emphasize that active aging includes taking part in economic and socially productive activities such as playing in the park with their grandchildren or working in their homes or gardens [11]. In 2011, the European Parliament gave a recommendation to support the policy of active aging in programs and systems of health and social security, and to aim the activities towards these important areas: comprehensive development of elderly persons, quality of life enhancement, and adequate environment structuring [12].

Social participation, as an important aspect of active aging, is a multifaceted concept which still lacks a clear and undisputed definition, although it is commonly used in health and social literature [13–15]. It is regarded as one of the major goals of

rehabilitation as well as a basic indicator of health, well-being, and positive social behavior [14, 16–18].

The International Classification of Functioning, Disability and Health (ICF) defines social participation as involvement in life situations, i.e. a person's experience in real-life circumstances and situational contexts. Two components of this concept are specified as capacity and performance. Capacity represents people's abilities, what they can do, regardless of the context, while performance is a capability to adequately apply one's abilities in real-life situations [19].

In the elderly, social participation involves a series of activities such as individually aimed activities (for example hobbies, neighborhood ties etc.) or those that are organized in the community (cultural events, volunteer work, church events, senior citizens homes) [13, 20].

Along with the benefits that social participation has on overall functioning and life of the elderly, studies have focused on identifying all relevant factors that influence social participation in old age. Some studies have focused on personality features [21–25], while others dealt with environmental factors [23, 25, 26] that affect the level of social participation. The analysis of available literature yielded the following factors that were included in most studies: physical ability, social support, depression, disability, chronic and malignant diseases, environment, older age, lower socio-economic status, ethnic minority status, lack of trust, lack of finances, difficulties adjusting to the process of aging, personality features, visual impairment, emotional stress [21, 23–27]. Each of these factors may lead to decreased social participation of the elderly which leads to social isolation, feelings of low self-esteem and loneliness, which in turn leads to certain health problems.

The process of aging is manifested by constant and gradual decreased functioning of organs and organ systems. Consequently, elderly persons are more prone to chronic diseases, followed by gradual loss of ability to function independently [28]. Some of the common conditions in old age include hearing loss, cataract, back and neck pain, degenerative diseases, chronic obstructive lung disease, cardiovascular diseases, diabetes, depression, dementia, and malignant diseases [20].

The impact of oncological diseases or disabilities on social participation of affected individuals has become an important topic of research in the past few decades [29]. Multiple studies point to a correlation between oncological diseases and the onset of disability in the elderly [30, 31]. Also, many studies have found an impact of oncological illnesses and disability on social participation and the degree of variability thereof in older persons [18, 32, 33]. In fact, the onset of health problems represents the main reason for decreasing social participation in old age [34]. Multiple chronic health conditions, which may lead to functional limitations, affect the mobility of the elderly, as well as the relative ease of participating in social activities [33].

The aim of this study was to determine the prevalence and variability of social participation of on-

colony patients over the age of sixty, as well as to identify its demographic determinants. We hypothesized that oncology patients over the age of sixty have a low level of social participation, and that gender, age, comorbidity etc. are significant determinants of their social participation.

Material and Methods

The study was conducted on a sample of 100 participants over 60 years of age who suffered from malignant diseases. The study only included participants who had not been receiving treatment for at least a year. The average age of participants was 73.52 (SD = 7.64). Out of the total 100 participants, 39 were men and 61 women. With regard to education, 32 had a primary education, 41 were high-school graduates, and 27 were college or university graduates. Nearly a half of the sample, 44 participants, were widows/ers, 38 were married, 11 divorced, 5 single and 2 in a romantic relationship. Around 86% of participants had at least one chronic disease. A cardiovascular disease was reported by 39% of participants, a respiratory illness by 19%, a rheumatic disease by 38%, a musculoskeletal disorder by 23%, diabetes by 18%, dementia by 2%, and urinary tract illness by 9%.

Some type of disability was found in as many as 46% of participants. Physical disability was reported by 22 participants, visual impairment by 64, hearing impairment by 14, speech and language difficulties by 5, and intellectual difficulties by 1 participant.

The study was partly conducted at the Senior Citizens Home "Novi Sad" and the Association of Old Age Pensioners of the City of Novi Sad, and partly among community dwelling participants in the wider Novi Sad area. Seventy five participants lived in individual housing, while 25 resided in senior citizens homes. All persons who took part in the study were given a written explanation of the purpose of the study. Participation was completely anonymous and voluntary. Participants were asked questions by interviewers who then recorded the answers in writing. The study was approved by the Ethical Committee of the Faculty of Medicine Novi Sad.

The used questionnaire consisted of two sections. The demographic questionnaire was constructed for the purpose of this study and it gathered information about the participants' age, gender, place of residence (town/village), type of residence (senior citizens home or individual housing), income, education and marital status. This section

also included questions on the presence of chronic illnesses and disability. The second part was the Maastricht Social Participation Profile (MSPP). This scale was constructed by Mars GMJ, Kempen GIJM, Post MWM, Proot IM, Mesters I, and van Eijk JTM in 2009 in the Netherlands [35]. It was intended to measure real-life social participation in older adults with chronic illness, and it was based on the definition of social participation given by the participants of the original study. Older adults defined social participation as a positive experience that includes one or more of the following: social contact, contribution to society or social benefits. The questionnaire was intended for persons over 60 years of age. It included 25 items, divided into three sections: social activity, contact with friends, and contact with family.

The Maastricht Social Participation Profile measured the prevalence and variability of social participation (how often people engage in social participation and in how many different types of social participation they were involved in) in the past 4 weeks. All responses were given on the same scale: 0 = never, 1 – 3 = less than once a week, 4 – 8 = once or twice a week, 9 + = more than twice a week. A higher score indicated higher social participation. Social participation was operationalized through the MSPP that consists of 3 subscales: social activity (9 items), contact with friends (8 items), and contact with family (8 items). The instrument was found to have solid metric characteristics. The reliability of the instrument measured by Cronbach alpha coefficient was .909, which is highly reliable, while values of Cronbach alpha coefficients for individual subscales ranged from .744 to .875.

The data obtained in this study were analyzed using the Statistical Package for the Social Sciences package 21.0. In order to check the postulated hypotheses and reach the intended goals we performed methods of descriptive statistics, t-test for independent samples, correlation analysis, linear regression analysis and one way analysis of variance.

Results

The total scores on subscales were calculated by adding scores of the corresponding items. The **Table 1** shows the participants' average scores on subscales and their correlations with each other.

The results indicate a statistically significant positive correlation between all domains of social

Table 1. Descriptive characteristics and correlations between different domains of social participation
Tabela 1. Deskriptivne karakteristike i povezanost različitih domena socijalne participacije

Domains/Domeni				
Social activity/Socijalne aktivnosti M 4.21(SD 3.84)	1	.474**	.413**	.691**
Contact with friends/Kontakt sa prijateljima M 11.32(SD 5.76)	.474**	1	.683**	.892**
Contact with family/Kontakt sa porodicom M 11.91(SD 6.05)	.413**	.683**	1	.881**
Total score/Ukupan skor M 27.44(SD 13.13)	.691**	.892**	.881**	1

**p < .01

Table 2. Differences in social participation between men and women
Tabela 2. Razlike između muškaraca i žena u socijalnoj participaciji

Subscale/Supskale	Gender/Pol	N	M	SD	t	p
Social activity/Socijalna aktivnost	Men/Muškarci	39	4.74	4.38	1.744	>.05
	Women/Žene	61	3.87	3.42		
Contact with friends/Kontakt sa prijateljima	Men/Muškarci	39	13.47	5.80	-.510	>.05
	Women/Žene	61	13.88	6.34		
Contact with family/Kontakt sa porodicom	Men/Muškarci	39	9.20	5.46	-.685	>.05
	Women/Žene	61	9.71	5.78		
Total score/Ukupan skor	Men/Muškarci	39	27.42	12.85	-.026	>.05
	Women/Žene	61	27.46	13.35		

Table 3. The effect of age on social participation
Tabela 3. Efekat starosti na socijalnu participaciju

	R	R ²	F	B	SEB	B
Social activity/Socijalna aktivnost	.320	.103	28.21**	-.160	.030	-.320**
Contact with friends/Kontakt sa prijateljima	.362	.131	37.32**	-.289	.047	-.362**
Contact with family/Kontakt sa porodicom	.504	.254	84.264**	-.371	.040	-.504**
Total score/Ukupan skor	.478	.228	72.975**	-.821	.096	-.478

**p < .01

Table 4. Social participation of oncology patients with regard to the type of residence

Tabela 4. Socijalna participacija onkoloških pacijenata koji jesu i koji nisu u ustanovama za smeštaj starih lica

Subscale/Supskala	Residence/Smeštaj	N	M	SD	t	p
Social activity/Socijalna aktivnost	Senior citizens home/Dom	25	2.16	2.10	-4.956	<.01
	Individual housing/Kuća/stan	75	4.86	4.03		
Contact with friends/Kontakt sa prijateljima	Senior citizens home/Dom	25	11.41	5.36	-3.414	<.01
	Individual housing/Kuća/stan	75	14.45	6.19		
Contact with family/Kontakt sa porodicom	Senior citizens home/Dom	25	4.66	3.70	-8.690	<.01
	Individual housing/Kuća/stan	75	11.05	5.29		
Total score/Ukupan skor	Senior citizens home/Dom	25	18.25	8.78	-6.765	<.01
	Individual housing/Kuća/stan	75	30.37	12.95		

participation as well as a significant correlation of each domain with the total score; it means that oncology patients who had high scores in one domain, had equally high scores in all the other domains of social participation (**Table 1**).

With regard to the relationship between social participation and the patients' gender, there were no statistically significant differences between men and women in any of the domains of social participation or in the total score (**Table 2**).

The linear regression analysis showed that the age of oncology patients was a statistically significant predictor in all three domains of social participation. The negative effect of age was obtained in all three domains, meaning that older participants had lower scores in all domains of social participation, compared to the younger examinees (**Table 3**).

With regard to the type of residence, statistically significant differences were obtained in the total score as well as in individual scores on each subscale between oncology patients living in a

house/flat and those living in senior citizens homes (**Table 4**). Persons living in individual housing scored higher compared to those residing in senior citizens homes.

To investigate the effects of disability on social participation, we created a dichotomous variable (with disability/without disability). The results presented in **Table 5** showed that there were statistically significant differences in all three domains of social participation as well as in the total score between patients with and without disability, the scores being higher in participants without disability.

Discussion

In the course of aging, many aspects of people's lives change, including the quality and quantity of their social networks, as well as the frequency of their social participation activities. Additionally, social participation may be affected by many factors including: personal factors (gender, health, income, education),

Table 5. Social participation of oncology patients with regard to disability
Tabela 5. Socijalna participacija onkoloških pacijenata u odnosu na invaliditet

Subscale/Supskala	Disability/Invaliditet	N	M	SD	t	p
Social activity <i>Socijalna aktivnost</i>	Absent/ <i>Nema</i>	54	4.75	3.88	2.422	<.05
	Present/ <i>Ima</i>	46	3.58	3.70		
Contact with friends <i>Kontakt sa prijateljima</i>	Absent/ <i>Nema</i>	54	15.68	6.04	5.801	<.01
	Present/ <i>Ima</i>	46	11.43	5.42		
Contact with family <i>Kontakt sa porodicom</i>	Absent/ <i>Nema</i>	54	11.12	5.89	5.096	<.01
	Present/ <i>Ima</i>	46	7.63	4.74		
Total score <i>Ukupan skor</i>	Absent/ <i>Nema</i>	54	31.56	13.15	5.663	<.01
	Present/ <i>Ima</i>	46	22.65	11.41		

contextual (social support, physical barriers, opportunities for participation), and life events common for older age, such as retirement or loss of spouse [36]. Our study primarily investigated the total level of social participation in elderly oncology patients.

The obtained results indicate that oncology patients over the age of 60 have a rather low social participation. Similar studies on social participation in the elderly conducted in the Netherlands show that 56% of the sample of older adults are involved in social participation activities [37], while this percentage in rural China is only 26% [38]. Pinto and Neri performed an analysis of 31 longitudinal studies on social participation in the elderly, mostly studies published between 2009 and 2015, and found that 21 studies reported on diminished social participation in old age [36]. A study titled "Social involvement of the elderly in Serbia" was conducted between 2016 and 2019. It demonstrated that despite a widespread belief that family relationships and social networks are more developed in Serbia compared to western countries, due to traditional patterns in which these informal networks play a major role, the reality is quite the opposite. Although it is believed that people are more estranged in developed countries, and that families spend less time together etc., this study did not find more social involvement of the elderly in Serbia [9]. This kind of data, combined with information on the effect of age, chronic diseases and other factors on social participation, provide valuable information for structuring rehabilitation programs and programs of care for the elderly. The results we obtained in the current study indicate that social participation of oncology patients is more varied and frequent in persons living in individual housing compared to those residing in senior citizens homes, and this was determined for all domains of the instrument used. This finding should be taken with caution, since the reasons for our findings can lie in different factors. Senior citizens homes can provide many possibilities for socializing such as cultural and recreational events and entertainment, while living in one's own home gives a greater sense of belonging, a stronger cohesion and family ties. Difficulties in everyday functioning and the inability to live safely and peacefully in one's own home, are the predominant reasons for a person to seek accommodation in a senior citizens home [9]. This factor can influence the results of

social participation in older adults in general, as well as those who are oncology patients.

We attempted to establish whether there is a difference in frequency and variety of social participation in oncology patients over the age of 60 with regard to demographic variables like age, gender, living arrangements, and disability. The participants' age was found to be a significant predictor of social participation. It was also established that there is a significant difference in the level of social participation with regard to the type of residence, while gender was not found to be a significant predictor of social participation.

Our results point to a negative impact of age on social participation. This means that older participants scored lower compared to younger ones. In a Brazilian study by Pinto and Neri, the results are in accordance with ours [26]. Also, in a study by Desrosiers et al. in Quebec [25] and Kurvers et al. in Limburg, the Netherlands [37], social participation was found to decrease with increasing age. A study conducted in Chile in 2014, showed that social participation increases until the age of 80, after which it decreases [39]. These results can be consequent to compounded effects of dealing with a malignant disease, and events common in old age, such as retirement, health issues, declining functionality, and loss of a spouse [36].

As far as the participants' gender was concerned, our study found no differences in social participation between men and women. A study in Japan, which included 12.991 elderly persons, found equal social participation in men and women [40]. In a study by Lefransoa et al. women were found to be less involved in all activities of social participation compared to men [41], while a study in Serbia established low levels of social participation in men and women alike, with the only difference being in the involvement in political organizations which was more frequent in men [9].

We attempted to determine if disability is a significant predictor of social participation. The obtained results indicate that the level of social participation is higher in oncology patients without disability compared to those with disabilities. Studies that dealt with the relationship between disability and social participation mainly defined disability as a function of needing help with activities, being able to perform self-help tasks, strength, mobility, and upper and lower limb

functionality [42, 43]. Studies focusing on a particular type of disability are rare [44], especially those involving oncology patients. Avlud et al. found that more comprehensive social relationships ease the disability [42]. In a study by Mendes de Leon, more socially active persons reported on lower levels of disability [43].

Conclusion

Implications of the current study include the need for further research aimed at identifying why and how encouragement and support affect social participation in older adults who are also oncology

patients. After examining the existing literature, we found social participation of the elderly to be widely covered in studies in other countries, while very little information on this subject is available in Serbia, which can create a challenge and a task to be accomplished in future studies. Having in mind the reciprocal causation of social participation (the impact of the onset of malignant disease on lowering the levels of social participation, but also the impact of a low level of social participation on the onset of disability and chronic diseases), persons over the age of 60 should be offered programs and resources in order to encourage social participation.

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