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Activities of daily life of people of the third age

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ABSTRACT

Introduction: Aging is a natural physiological process based on disturbances of homeostatic mechanisms and loss of adaptability that significantly affects life activities over time. The activities of daily living (ADL) in old age represent the relationship between the subjective characteristics of each individual, supplemented by previous life experiences, and objective socioeconomic factors that create a desirable living framework for people in the third age. The objectives of this research are to analyze the sociodemographic characteristics of third-age people, to study the daily activities of third-age people, and to compare the daily life activities of third-age people living in a rural setting with those of third-age people living in an urban setting.

Methods: The research was conducted in the area of urban and rural environment of Travnik municipality. One hundred elderly people (50 from urban and 50 from rural areas) were included in the research using the snowball method. The instrument used in our research is a standardized questionnaire on instrumental ADL (IADL) according to Lawton-Brody. The study was conducted during the period from the end of March to the end of May 2022.

Results: There is a statistically significant difference in ADL in all eight domains. The mean IADL score in the total sample (n = 100) was 6.36 ± 1.78 and ranged from 1 to 8. The largest number of respondents had the highest IADL score of 8 in 41% of cases, while only one respondent had an IADL score of 1.

Conclusion: The obtained results prove that the score of ADL is lower in people of third-age living in rural areas.

Keywords: Activities of daily life; persons of the third age, rural living, urban living

INTRODUCTION

Between 2015 and 2050, the number of people in their third age will increase from 12% to 24% of the total population, due to a combination of declining birth rates and higher life expectancy. In Bosnia and Herzegovina, this shift toward an aging population has already begun. In 2019, 17% of people in Bosnia and Herzegovina were over the age of 65, and projections indicate that this percentage will increase dramatically by 2050. Aging is a physiological, individual process that progresses at different rates, which means that each person ages differently. It is not easy to determine the life or age limit that can be answered with certainty when old age occurs (1). Old age itself represents a specific stage of life associated with chronological age. With increasing age, numerous changes occur in organs and organ systems, leading to progressive weakening and impairment of their function so that certain chronic diseases occur more frequently in old age and, thus, affect the functioning of an elderly person. According to the World Health Organization, old age is divided into: early age (65-74 years), middle age (75-84 years), and old age (85 and older).

Psychological gerontology is of particular importance because aging causes permanent changes in sensation, perception, motor skills, learning and memory, and intelligence. These changes have a significant impact on the daily functioning of people in the third age, affecting their usual behaviors and activities (2). Activities of daily livings (ADLs) are essential and routine tasks that most young, healthy people can perform without assistance. The inability to perform basic ADL can lead to unsafe conditions and poor quality of life. The healthcare team should be aware of the importance of assessing patients' ADLs to ensure that those who need help are identified. The foundations for healthy, active aging while maintaining functional capacity and improving health in old age are laid at a young age through personal choices and positive health behaviors. A proper, balanced diet, maintenance of a normal body weight, and regular, moderate daily exercise are the most

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important factors for maintaining health and vitality in people in the third age (2). The objectives of this study are to analyze the sociodemographic characteristics of people in the third age, to study the daily activities of elderly people living in rural and urban areas, and to compare the daily activities of elderly people in rural areas with those in urban areas.

METHODS

The study was designed as a cross-sectional, descriptive-analytical, and comparative study (Cross-sectional study). The study was conducted during the period from the end of March to the end of May 2022.

The sample consists of 100 surveyed seniors (50 from urban areas and 50 from rural areas) aged 65 years and older, who were interviewed using the snowball method. The survey was conducted in the urban area (Travnik) and rural area (Runjići, Šakići, Ganići, Voćnjak, Maline, Slimena, Guča Gora, Pulac) of Travnik municipality.

The instruments used for the research are as follows:

1. Questionnaire on sociodemographic data, which includes the following: Age, level of education, place of residence, marital status, and occupation of some professional ADL
2. Lawton-Brody standardized instrumental ADL (IADL) questionnaire, which consists of eight functional domains measured by Lawton's IADL scale, which is used to assess the independence of individuals in the third age. The questionnaire is used to determine a person's current level of functioning and to identify improvements or deterioration over time.

The criteria for inclusion in the study were persons over 65 years of age who gave written consent to participate in the study and who were psychophysically able to complete the questionnaire. Excluded were persons younger than 65 years, not living in the area of Travnik municipality, not having given consent to participate in the study there, and psychophysically unable to complete the questionnaire.

The research was approved by the Ethics Committee of the University of Sarajevo – Faculty of Health studies

The data collected during the research were stored in the database of Microsoft Office Excel 2013 program. The results are presented tabularly and graphically by the number of cases, percentage (%), arithmetic mean (AS) with standard deviation (SD), and range of values according to the type of data. The distribution test was performed with the Shapiro–Wilk test, and appropriate parametric and non-parametric tests, the Chi-square test, Student's t-test, and Mann–Whitney test were applied. The results of all tests were considered statistically significant at the 95% confidence level or at a value of $p < 0.05$. Analysis was performed using the statistical package IBM Statistics SPSS v 23.0.

RESULTS

A total of 100 respondents living in the area of Travnik municipality were included in the research. A total of 100 respondents of both sexes, over 65 years of age, half of whom live in urban 50 (50%) or rural 50 (50%) areas, were included in the study.

In accordance with the classification of people in the third age according to the WHO, 91% of the respondents were in the earlier stage, while 9% of them belonged to the middle-aged category (Table 1).

In terms of educational level, most of the respondents, 62%, had completed elementary school, followed by 22% with secondary education and the fewest respondents, 16%, with higher education and above.

Regarding marital status, 51% are married, 44% are widowed or widowers, while only 5% of respondents are divorced or live alone.

Among the occupational activities of the respondents, 39% say that they are engaged in recreational activities, 40% of the respondents work in agriculture (only in rural areas), animal husbandry 16% of the respondents raise livestock, 15% of the respondents knit, sew, card, 14% of the respondents hike, and only one respondent rides a bicycle (Chart 1).

Evaluating the ADL, 60% of respondents are able to operate a cell phone on their own, search and call numbers, and answer the phone, while 5% of respondents do not use the phone at all.

The analysis of the ability to use a cell phone according to the area between respondents shows that there is a statistically significant difference ($\chi^2 = 11.574$; $p = 0.009$; $p < 0.05$) in the sense that a greater number of respondents in urban areas operate the phone on their own initiative (83.3:44.4%) compared to respondents from rural areas, who are more likely to call several known numbers (38.9:4.2%). While there is also a statistically significant difference between respondents ($\chi^2 = 8.400$; $p = 0.038$; $p < 0.05$) in the sense that a greater number of respondents in urban areas operate the phone on their own initiative (73.1:35.7%) compared to respondents in rural areas, who more often call a few known numbers (42.9:26.9%), answer the phone but do not call (14.3:0.0%) and do not use the phone at all (7.1:0.0%).

Of the total sample, 53% of respondents are able to do all their shopping independently, 38% of respondents store independently, while 2% of respondents are completely unable to store.

TABLE 1. Age of the respondent

Age of life	*n*	%
More than 76 years	9	9.0
From 65 to 74 years	91	91.0
In total	100	100.0

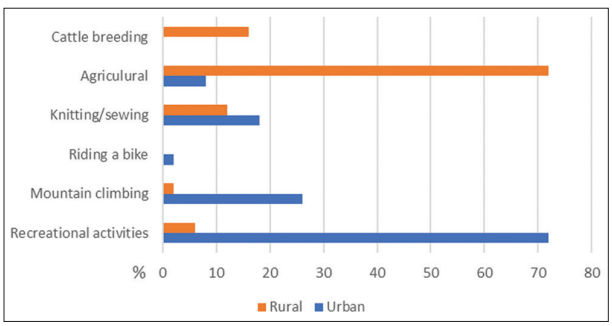

CHART 1. Comparison of occupational activities that the respondents engage in according to areas.

The analysis of the ability to do shopping by area between respondents shows that there is a statistically significant difference (χ^2 = 11.931; p = 0.008; p < 0.05) in the sense that a greater number of respondents in urban areas do all their shopping independently (83.3: 44.4%) compared to respondents from rural areas who are more likely to buy small items independently (38.9:4.2%). No statistically significant difference was found between respondents (χ^2 = 0.406; p = 0.410; p > 0.05), although some difference was found in the sense that a greater number of respondents in urban areas do all their shopping on their own initiative (46.2: 35.7%) compared to respondents from rural areas who more often buy small items independently (64.3:53.8%).

Of the total sample, 53% of respondents plan, prepare, and serve adequate meals independently, while 2% of respondents must have meals prepared and served.

Analysis of food preparation ability by area between respondents shows that there is no statistically significant difference (χ^2 = 3.606; p = 0.365; p > 0.05), although certain minor differences exist in the sense that a greater number of respondents in urban areas independently plan, prepare, and serve adequate meals (91.7:86.1%) and more likely to reheat, serve, and prepare meals but not eat adequately (8.3:2.8%) compared to respondents from rural areas who are more likely to prepare adequate meals when they have all the ingredients ready (5.6:0.0%) or have dishes prepared and served (5.6:0.0%). There is also no statistically significant difference between respondents (χ^2 = 3.277; p = 0.351; p > 0.05), although certain minor differences exist in the sense that a greater number of respondents in urban areas plan independently,

Of the total causes, 49% of respondents perform household chores independently, 14% of respondents perform light daily household chores, 12% of respondents do not participate in any household chores, and 3% of respondents need help with all household chores.

The analysis of the ability to do housework by area between respondents shows that there is a statistically significant difference (χ^2 = 11.899 p = 0.018; p < 0.05) in the sense that a greater number of respondents in urban areas manage the household alone or with occasional help (91.7: 58.3%). There is no statistically significant difference between respondents (χ^2 = 6.400 p = 0.171; p > 0.05), although there are some differences in the sense that a greater number of respondents in urban areas perform light daily tasks (42.3:7.1%) and perform light daily chores but cannot maintain an acceptable level of cleanliness (23.1:21.4%), while respondents from rural areas are more likely to manage the household independently with occasional help (21.4:11.5%), require help with all household chores (7.1:3.8), and participate in no household chores (42.9:19.2%).

Of the total sample, 55% of respondents wash all of their personal laundry, 24% of respondents wash a small amount of clothing, and 21% of respondents need help from another person.

The analysis of the ability to wash clothes by area between respondents shows that there is no statistically significant difference (χ^2 = 4.713 p = 0.095; p > 0.05), but also that there are some differences in the sense that a greater number of respondents in urban areas wash their personal laundry completely (91.7:69.4%), while respondents from rural areas are more likely to wash smaller items of clothing (25.0:4.2%) or have others wash all of their laundry for them (5.6:4.2%). There is a statistically significant difference between respondents (χ^2 = 15.824 p = 0.0001; p < 0.05) in the sense that a greater number of respondents in urban areas wash all of their personal laundry (23.1:14.3%) and they wash smaller items of clothing more frequently (53.8:0.0%), while respondents from rural areas often have to have all their laundry washed for them by others (85.7:23.1%).

Of the total number of respondents, 55% travel independently by public transportation or drive their own cars, while 2% of respondents travel by public transportation accompanied by others.

Analysis of transportation by area between respondents shows that there is a statistically significant difference (χ^2 = 16.082; p = 0.003; p < 0.05) in the sense that a greater number of respondents in urban areas travel independently by public transportation or own car (82.6:36.1%), while all other transportation options are more frequently used by respondents from rural areas. There is no statistically significant difference between respondents (χ^2 = 0.630; p = 0.535; p > 0.05), but there are some differences in the sense that a greater number of respondents in urban areas travel independently by public transportation or drive their own cars (57.7:57.1%) and self-transport by cab but do not use public transportation (11.5:7.1%), while all other transportation options are used more frequently by respondents from rural areas.

Of the total number of respondents, 89% are responsible for taking medications in the correct dose and at the correct time, while 1% is unable to administer their own therapy.

Analysis of responsibility for taking prescribed therapy by area between respondents shows that there is no statistically significant difference (χ^2 = 0.749; p = 0.688; p > 0.05), but there are some differences in the sense that a greater number of respondents in urban areas are responsible for taking medication in the right dose at the right time (95.8:91.7%), while the other options are more often reported by respondents from rural areas. There is also no statistically significant difference between respondents (χ^2 = 0.230; p = 0.631; p > 0.05), but there are some differences in the sense that a greater number of respondents in urban areas are responsible for taking medication in the right dose at the right time (84.6:78.6%), while the other options are more often reported by respondents from rural areas.

Of the total number of respondents, 69% manage their finances independently, while 2% of respondents are not able to manage money. The analysis of the ability to manage finances by area between respondents shows that there is a statistically significant difference (χ^2 = 11.537; p = 0.003; p < 0.05) in the sense that a greater number of respondents in urban areas manage financial matters independently (95.8:55.6%), while the other options are more often reported by respondents from rural areas. There is no statistically significant difference between respondents (χ^2 = 0.005; p = 0.605; p > 0.05), but there

are some differences in the sense that a greater number of respondents in urban areas manage financial matters independently (65.4:64.3%), while the other options are more often reported by respondents from rural areas.

The mean IADL score in the total sample (n = 100) was 6.36 ± 1.78 and ranged from 1 to 8 (Table 2). Most respondents (41%) had the highest IADL score of 8, whereas only one respondent had an IADL score of 1 (Chart 2).

DISCUSSION

The subject of our research was the activities of daily life of elderly people living in urban and rural areas of Travnik municipality. Based on numerous works and facts about the activities of people in the third age, this work pays great attention to the existing problem by investigating the impact of daily activities on people in the third age and the possibilities of performing these activities. The ADL of older people are certainly more possible in the environments, where financial, institutional, non-institutional, professional, and volunteer help is available (3). The research was conducted in the area of Travnik municipality on a sample of 100 respondents of the third age, 50 respondents from the urban environment and 50 respondents from the rural environment.

According to the results of our research, 91% of the respondents in the third-age group belonged to the category of earlier age according to the WHO, while 9% belonged to the category of middle age. In the study of Findeisen the average age of the respondents in the third-age group was 21.3% in the earlier age category, while 30% of the respondents were middle-aged (4). This research does not coincide with the results of our study.

Analyzing our responses regarding the level of education, it was found that the largest number of respondents with lower vocational education was 62%, followed by respondents with secondary vocational education 22%, and the least number of respondents with VSS (high vocational education) 16%. Čurin, in their work, states that the largest number of respondents with higher education was 41.3%, followed by respondents with secondary education 29.3% and the least number of respondents with lower education 0.1% (5). According to the research conducted by Šantej in the Ljubljana region, which also refers to the level of education, most respondents had a college degree, namely, 80% (6). The research of the mentioned authors regarding the educational level of the respondents does not coincide with the results of our research, because, in our research, the lower professional education dominates.

TABLE 2. Average value of IADL in the total sample

Measurement	*n*	x̄	SD	SEM	The minimum	The maximum
IADL total score	100	6.36	1.78	0.18	1.00	8.00

IADL: Instrumental activities of daily living

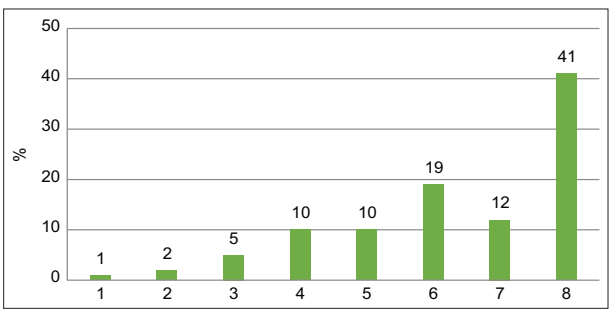

CHART 2. Display instrumental activities of daily living score from lowest to highest.

Based on the results of our research, which referred to the marital status of the persons in the 3rd year of life, we came to the conclusion that half of the respondents live with a married/extra-marital partner, namely, 51%, and that in 25% of the cases they live alone, while, in 24% of the cases, they live with other family members (children, grandchildren, and close relatives). Kuzma D., in his work, states that 29% of respondents live with their spouse, while 32% of respondents live with other family members (children, grandchildren, and close relatives) and in 28% of cases they live alone (7), which is not consistent with the results of our study.

The analysis of the answers of our research results in relation to professional activities shows that they are only positive answers. About 39% of respondents were engaged in professional activities, 40% of respondents worked in agriculture (only in rural areas), 16% of respondents raised livestock, 15% of respondents knitted, sewed, and carded, and 14% of respondents went hiking and only one respondent rode a bicycle. Milosaljević states in his work that women mostly direct their professional activities toward nature, outdoor meetings, or trips, while men prefer everyday meetings (8), which is not consistent with the results of our research.

By analyzing Lawton-Brody's standardized ADL (IADL) questionnaire, in which we used in our research, we assessed the independence of people in the third age. The main objective of our research is the ability to perform ADL.

Analyzing the results of our research on the question of the ability to use a cell phone, 60% of the respondents indicated that they are able to use the phone on their own, that is, search and call numbers, answer the phone, while 5% of the respondents do not use the phone at all. The analysis of the ability to use a cell phone by area between respondents (of both genders) shows a statistically significant difference, where respondents in urban areas use the phone on their own initiative (42%), compared to respondents in rural areas, who more often call a few known numbers (16%). Nekić et al. conducted a study comparing how often older people use cell phones. The study found that, on average, people in their third age use the internet at least once a week. However, out of a total of 295 respondents, 59.7% of them do not use cell phones at all, while 40.3% of respondents use mobile internet between several times a year (1.7%) and several times a day (20.7%). Respondents use the cell phone most often to access the internet, to read news and other interesting things on portals, and to talk to friends and relatives through Skype (a program for fast internet correspondence, video chat, or phone calls) (9), which is not different from our study.

In our study, we investigated the shopping ability of people in the third age. We concluded that 53% of the respondents are able to do their shopping independently, 38% of the respondents store independently, while 2% of the

respondents are not able to store at all. In the research conducted by Park et al., field experiments were conducted to investigate the effects of two situational factors, knowledge of retailing, and time available for shopping, that is, how they affect the behavior of people in their third age when shopping for groceries. The results indicate that these two factors influence purchase behavior, such as failure to make a planned purchase, unplanned purchases, change of brand and product class, and consideration of purchase quantity. The results also suggest that the information processing activities that mediate these relationships vary by purchase condition. Implications for food retail management are offered that could improve current practices (10), which do not correlate with our research.

When comparing urban and rural areas, we found the difference that a greater number of respondents in urban areas do all of their own shopping (42%) than in rural areas, where respondents store for small items on their own (30%). In the research conducted by Park et al., field experiments were used to examine the effects of two situational factors, retail knowledge, and time available for shopping, that is, how they affect the grocery shopping behavior of third-age individuals. The results show that these two factors influence purchasing behavior, such as failure to make an intended purchase, unplanned purchases, change of brand and product class, and consideration of purchase quantity. The results also suggest that the information processing activities that mediate these relationships differ by purchase condition. Implications for food retail management are offered that could improve current practices (10), which do not correlate with our research.

Regarding food preparation, the results of our research show that 53% of respondents plan, prepare, and serve appropriate meals on their own, while 2% of respondents must have meals prepared and served. About 10% of respondents in urban areas warm and serve meals more frequently than respondents in rural areas, who are more likely to plan and prepare meals independently (60%), and 12% of respondents need to have meals prepared and served. In the research conducted by Kimm H. and Mahajan, they concluded that 90% of the respondents in the third age group have no difficulty in moving around, 69% of the respondents are able to plan and prepare meals independently, 31% of the respondents need to have meals served to them, and only 12% are unable to prepare their own tea or coffee (11,12). The research of the mentioned authors partially coincides with our research on independent meal preparation.

The analysis of the results of our research on the ability to do housework in people in the third age showed that 49% of the respondents manage the household independently, 14% of the respondents perform light daily tasks, 12% of the respondents do not participate in housework, and 3% of the respondents need help with all housework. It was found that there are certain differences in the sense that a larger number of respondents in urban areas are more likely to run the household independently with occasional help (48%), equally from both areas they perform light daily tasks (22%), while respondents from rural areas do not participate in any household jobs (10%). According to the research of Vrkaš and Irusac, the vast majority of respondents are functionally able to perform daily activities. Between 78% and 85% of respondents were able to independently perform regular daily activities, such as personal hygiene, getting out of bed, and preparing meals, without difficulty. A slightly smaller number of them are able to go shopping or to the market independently and without difficulty, that is, clean their room, apartment, or house. These activities were performed with great difficulty by 4-6% of the respondents, and between 11% and 15% of them needed the help of another person (13), which is different from our research.

When it comes to activities such as washing clothes, in our research, we came to the conclusion that 55% of respondents wash their personal clothes completely, 24% of respondents wash small combinations of clothes, and 21% of respondents need the help of another person. There are certain differences in the sense that a larger number of respondents in urban areas wash their clothes completely by themselves (56:54%), while, in rural areas, all the laundry has to be done by other people (28:14%). In the study by Havelka et al., it was estimated that 25-30% of the elderly need the help of another person or a caregiver to do their laundry (14). Toplek, in her research, concludes that most of the respondents (28.1%) participate in washing the laundry, while 10.9% of the respondents do not participate and need the help of other people (15). The results of the mentioned authors do not agree with the results of our research.

According to the results of our research, 55% of respondents travel independently by public transport or by their own car, while 2% of respondents travel by public transport accompanied by other people. When we compare urban and rural areas, we see a difference in the sense that a greater number of respondents in urban areas travel independently by public transportation or by their own car (42%), while all other transportation options are used more often by respondents in rural areas. In a survey conducted by National alliance for nursing and American Association of retired persons, they find that most respondents, 31.3%, travel independently by public transportation, while 7.8% of respondents use transportation accompanied by another person (16). The results of the mentioned authors show similarities with the results of our study, that is, the majority of respondents travel independently by public transport.

When it comes to taking medications, the results of our study show that 89% of the total number of respondents are responsible for taking medications in the right dose and at the right time, while 1% of respondents are not able to administer their own therapy. There is no statistically significant difference, but there are some differences in the sense that a greater number of respondents in urban areas are responsible for taking medication in the right dose at the right time (90:88%), while other options are more often reported by respondents in rural areas. In their research, Štambuk et al. studied the use of medications in the elderly, the largest proportion of respondents (26.6%) were responsible for taking medication, and 3.1% of respondents were unable to administer their own therapy (17). The research of Štambuk et al. on the issue of responsibility for one's own medications is consistent with the results of our research, that is, respondents are more likely to be able to take responsibility for their own medications.

The results of our research on the ability to manage finances show that of the total number of respondents, 69% manage their finances independently, while 2% of respondents are not able to handle money. 80:58. Authors Kuzma *et al*., in their work, entitled "Quality of life of people in the third age" concluded that respondents estimate that they have the means for the most basic life needs (M = 2.7) (SD = 0.548) from all financial needs. This result indicates that people in the third age in the city of Rijeka, regardless of the different living conditions, still have satisfactory living conditions. Immediately afterward, they estimate that they live well with their own money (M = 2.28) (SD = 0.792) and that they are financially independent from others (M = 2.23) (SD = 0.941), which indicates that they have means for the most basic life needs (7). The results obtained are consistent with the findings of our study on independent control over finances.

The mean IADL score in the total sample (n = 100) was 6.36 ± 1.78 and ranged from 1 to 8. Most respondents had the highest IADL score-8 in 41% of cases, whereas only one respondent had an IADL score of 1. Based on the results of our study and an insight into the literature used, we can say that the score for ADL is lower in people in the third-age living in rural areas.

CONCLUSION

Based on the research results and in accordance with the set objectives, we concluded that the score for ADL is lower in people in the third-age living in rural areas.

Declaration of interest

Authors declare no conflict of interest.

REFERENCES

1. World Health Organization. In: Kanstrom L, Zamaro G, Geoff GS, editors. Healthy Aging Profiles: Green Guidance for Producing Local Health Profiles of Older People; 2008. Switzerland: World Health Organization. Available from: https://www.euro.who.int/data/assets/pdf_file/0011/98399/E91887.pdf last access: 01.february 2023.
2. Institute of Medicine United states Food Forum. Providing Healthy and Safe Foods as we Age: Workshop Summary. Washington, DC: National Academies Press United States; 2010.
3. Iinuma T, Arai Y, Takayama M, Takayama M, Abe Y, Osawa Y, et al. Satisfaction with dietary life affects oral health-related quality of life and subjective well-being in very elderly people. J Oral Sci 2017;59(2):207-13.
   https://doi.org/10.2334/josnusd.16-0414
4. Findeisen D. Education of the elderly and the importance of their education forself and society. Andragogic Insights 2009;15(3):12-21.
5. Čurin J. In the land of knowledge, seniors really want to learn. Andragoški Glasnik 2012;16(2):143-53.
6. Šantej A. Slovenian University for the third age through twenty years. Quality Aging 2003;6(4):18-24.
7. Kuzma D. Quality of Life of People of the Third Age. Rijek: University of Rijeka; 2016.
8. Milosaljević LJ. Time management and its evaluation in older members of society. Anthropology 2011;1(11):143-59.
9. Nekić M, Junaković IT, Ambrosi-Randić N. Internet use in the Elderly. Department of Psychology. Zadar: University of Zadar; 2016. p. 179-93.
   https://doi.org/10.21465/2016-SP-192-04
10. Park WC, Iyer ES, Smith DC. The effects of situational factors on in-store grocery shopping behavior: The role of store environment and time available for shopping. J Consu Res 1989;15(4):422-33.
    https://doi.org/10.1086/209182
11. Kimm H, Sull JW, Gombojav B, Yi SW, Ohrr H. Life satisfaction and mortality in elderly people: The Kangwha Cohort Study. BMC Public Health 2012;12:54.
    https://doi.org/10.1186/1471-2458-12-54
12. Mahajan A, Ray R. The Indian elder: Factors affecting geriatric care in India. Glob J Med Public Health 2013;2:1-5.
13. Vrkaš SV, Irusac VS. Real Persons of Elderly Age in the City of Zagreb. A pilot Study. "Common Path" Foundation. Zagreb; 2013. 48-103.
14. Havelka M, Despot-Lučanin J, Lučanin D. The Needs of the Elderly for Comprehensive Care Services in the Local Community. Zagreb: University of Health in Zagreb; 2000.
15. Toplek A. Informal Caregivers of Elderly People in Međimurje and Varaždin Counties. Karnataka: University of the North; 2021.
16. The National Alliance for Caregiving, AARP. Caregiving in the US 2020: A Focused Look at Family Caregivers of Adults Age 50+. Washington, DC: The National Alliance for Caregiving; 2020. Available from: http://www.caregiving.org. 20.07.2020. Last accessed details 20.07.2020.
17. Štambuk A, Rusac S, Skokandić L. Profile of informal caregivers of the olderly in the city of Zagreb. Rev Soc Policy 2018;26(2):189-205.