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RESEARCH ARTICLE

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A survey on older adults' attitudes toward end-of-life care preferences

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ABSTRACT

The aging of the population is a global demographic trend that we can also observe in Croatia. This brings additional challenges for individuals, families, and communities. One of the most important goals is to extend life expectancy and increase the number of healthy life years. It is therefore important to ensure high-quality end-of-life care, which means that we need to understand what matters most to patients, families, and caregivers. The main aim of the study was to investigate the preferred type of care during the last days of life among older adults over 60 years of age. A cross-sectional survey was conducted among outpatient healthcare users in Istria County (Croatia). 106 older adults took part in the survey, of which 72 (67.9%) were women and 34 men (32.1%) between the ages of 60 and 98. The results show that older adults in Istria County would rather spend the last days of their lives at home than in a hospital. The older adults who prefer hospitalization at the end of their lives cite reasons such as fear of dying alone and burdening the family. In addition to comprehensively and continuously improving the quality of life of older adults, healthcare systems should take more time to ensure a dignified end of life, i.e., working toward ensuring that the last moments of a person's life, as well as death itself, take place exactly where the individual wishes, and that each individual is treated holistically in meeting their needs and improving palliative care at home.

1. Introduction

The aging of the population is a global demographic trend that we can also observe in Croatia. The average age of the total population of the Republic of Croatia is 44.3 years (men 42.5 years, women 45.9 years) according to data from the last census in 2021, making the country one of the oldest nations in Europe [1]. The same source shows that the proportion of over-65s in the total population is 868 638 (22.45%), of which 361 330 (19.28%) are men and 507 308 (25.19%) are women [1]. This brings additional challenges for the individual, the family, and the community. One of the most important goals besides extending life expectancy is to increase the number of healthy life years [2]. Therefore, it is important to provide quality end-of-life care, which also means understanding what matters most to patients, family members, and caregivers. Patients approaching the end of life face complex and sometimes difficult decisions about the type and location of care they wish to receive. In addition to survival time, their decisions may be influenced by quality of life, pain management, time spent with their loved ones, and their preferences regarding the time and place of death [3–5]. There is limited research on preference decisions regarding the location of end-of-life care or palliative care, especially in Croatia [6–8]. Therefore, this article aims to provide an important insight into what matters most to older adults in Istria County when they think about death, which is inevitable due to their advanced age and health status. As aging is in a way becoming a "trend" in the world, including in Croatia, we should think about the quality of healthcare we want to provide to older adults so that their lives, up to the last moments and death itself, are dignified [9–11]. Such research-based insights can help to develop holistic models of care that truly meet people's needs, values, and preferences at the end of life [12,13]. The aim of the study was to investigate the preferred type of end-of-life care for older adults, whether they prefer care in a hospital or at home, and to explore their subjective perception of health. In addition, the attitudes of older adults toward the quality of community health and care services were to be analyzed. This was based on the assumption that there is no statistically significant difference between the groups studied – i.e. that there is no difference in the proportions of respondents who prefer

hospital or home care in their final days of life in terms of gender, marital status, parenthood, fear of death, caregiver in old age, and subjective perception of health.

2. Materials and methods

2.1. Participants

The study was conducted as a cross-sectional study with a recall sample. It comprised 106 respondents aged over 60 years (M = 79.46, SD = 8.73) – 72 (67.9%) women and 34 men (32.1%). The respondents were beneficiaries of municipal healthcare in Istria County in the areas of Buje, Brtonigla, Oprtalj, and Grožnjan.

2.2. Research methods

A questionnaire was designed specifically for this study, which the respondents completed at home with the help of the study authors using the paper-and-pencil method, and which was then transferred to an Excel spreadsheet for statistical processing. As the questionnaire was created by the study authors specifically for this study and adapted to the sociological, cultural, and geographical characteristics of the area in which the survey was conducted, no formal validation of the questionnaire took place in advance. The survey was conducted from May to July 2022. The first part of the questionnaire collected basic demographic data, including gender, age, and marital status (single, married, in a relationship, cohabiting, widowed, divorced), as well as information about children and household type (who they live with). The second part of the questionnaire consisted of 12 questions relating to lifestyle and thoughts about age, hobbies, and available forms of healthcare. One question was open-ended and asked respondents to explain in two sentences where they thought it would be better to live and die in old age (at home or in an institution). The third part of the questionnaire contained nine questions on attitudes toward elderly care. Respondents had to choose the answer they felt was the most appropriate on a Likert scale from 1 to 5, where 1 meant "I strongly disagree" and 5 meant "I strongly agree".

2.3. Statistical methods

The collected data were analyzed using the IBM SPSS 23 package for statistical processing. The methods of descriptive statistics were used in this work. Before statistical data processing, the prerequisites for calculating the parametric tests were checked. The normality of the distribution was checked using the Kolmogorov–Smirnov test [14]. Since most variables are expressed on a nominal scale, the sample is small, and the Kolmogorov–Smirnov test is statistically significant for all variables ($p < 0.05$), a non-parametric alternative, the chi-square test with a significance level of $p < 0.05$, was used to test the hypotheses [14,15].

2.4. Ethical aspects of the research

The Ethics Committee of The Istrian Health Centres, Croatia, approved the study, ensuring that the strict standards of the Croatian Personal Data Protection Act (Official Gazette 103/03–106/12) were met. Furthermore, the ethical principles of the Declaration of Helsinki were strictly adhered to during the research process. All respondents received detailed information about the objectives of the study before their participation. Each participant was able to give their voluntary consent, emphasizing their autonomy to participate or withdraw without coercion. Participation was strictly voluntary and complied with the principles of ethical research.

3. Results

3.1. Socio-demographic data of the respondents

As can be seen from Table 1, women predominated in the sample (67.9%), and in terms of age, most respondents were in the 71 to 80 age group (40.6%). In terms of marital status, most of the respondents were widowed (44.3%) or lived in a marital or extramarital partnership (42.5%). Of the 106 respondents, most had children (84%) and lived alone in the household (31.1%).

As shown in Table 2, the majority of respondents maintain regular contact with their relatives (90.6%), pursue a hobby (72.6%), and have someone to look after them when they are unable to cope (79.2%), indicating that most respondents have a well-developed social network and full leisure time. In line with age, those who feel healthy (27.4%) are also in the minority, as are those who are afraid of death (39.6%). Furthermore, most respondents have not thought about who will take care of them when they become old and frail (74.5%), but they have thought about where they would like to spend their last days (65.1%).

Most respondents mentioned walking (26.4%), playing cards (13.2%), and gardening (10.4%) as hobbies. A slightly lower percentage of respondents named cooking (7.6%), cell phone use (4.7%), and sports (3.8%) as hobbies. The respondents' least "popular" hobbies were handicrafts (1.9%), painting (0.9%), and reading (0.9%). However, more than a quarter of respondents (27.4%) stated that they had no hobbies.

Table 1. Socio-demographic data of respondents

Variable		Number (%)	Mode
Gender	Female	72 (67.9%)	Female
	Male	34 (32.1%)	
Age	60–70 years	16 (15.1%)	71–80 years
	71–80 years	43 (40.6%)	
	81–90 years	36 (34%)	
	over 90 years	11 (10.4%)	
Marital status	Single	9 (8.5%)	Widowed
	Married/cohabiting	45 (42.5%)	
	Divorced	5 (4.7%)	
	Widowed	47 (44.3%)	
Children	Yes	89 (84%)	Yes
	No	17 (16%)	
Household	Single	33 (31%)	Single
	Spouse	31 (29.2%)	
	Immediate family	26 (24.5%)	
	Extended family	16 (15.1%)	

Table 2. Lifestyle and thoughts about old age

	Frequency (%) of responses N = 106	
	YES	NO
Have you been visited by a carer?	106 (100%)	0 (0%)
Have you ever been visited by a geriatric housekeeper?	14 (13.2%)	92 (86.8%)
Do you have friends / close relations with whom you are in regular contact?	96 (90.6%)	10 (9.4%)
Do you have any hobbies?	77 (72.6%)	29 (27.4%)
Do you feel healthy?	29 (27.4%)	77 (72.6%)
Have you ever thought about what will happen to you when you are older and frail?	27 (25.5%)	79 (74.5%)
Do you have someone who will take care of you in case of illness, old age, or infirmity?	84 (79.2%)	22 (20.8%)
Are you afraid of death?	42 (39.6%)	64 (60.4%)
Have you ever thought about a place where you would like to spend your last days?	69 (65.1%)	37 (34.9%)

3.2. Preferred place for old age and death: where and why?

When asked where they would prefer to live to experience their old age and death (in an institution or at home), 66 (62.3%) of the 106 respondents stated that they would prefer to live and die at home. 27 (25.5%) respondents were in favor of a hospital or other facility. 11 respondents (10.4%) were not concerned about where they would live in old age, and two people (1.9%) were unable or unwilling to answer the question, so they were excluded from further analysis due to the low frequency in the cell (<5).

Opinion 1: I would like to die at home

Most people who want to grow old and die at home say that they would then feel calmer and happier. They believe that it is best to stay in the place where they have spent most of their lives. Their answers show that older people are very emotional and want to spend their last years in a familiar environment with loved ones. Here are some examples of responses: "*I prefer to die where I live.*", "*This is my home and my place, and this is where I would prefer to die.*", "*It would be nice to go to sleep forever where I wake up every day.*", "*I would like to die in my bed.*", "*Preferably in your home, where you've lived your whole life.*", "*This is where I was born, this is where I live and this is my home.*", "*To be happy, it would be best for me to die in my home. I hope I live to see it.*", "*The best thing is to die where you live, but I'm not sure if I can do that because my children live far away. I'm afraid of the feeling of dying in a hospital somewhere, far away from the people who are close to me.*", "*I'd like to lie in my bed and just not wake up.*", "*Isn't it better to die where you've spent your whole life than to be put in a hospital just before you die?*", "*Home is home.*"

Opinion 2: I would like to die in the hospital

Many of the respondents who have chosen to spend their old age and final moments in a hospital or care facility appear to be doing so out of necessity rather than personal preference. Their answers suggest that fear plays an important role – not wanting to be alone or burden their families – rather than a belief that a hospital is better than their home. While many say that a hospital or similar facility is the best option, their reasoning is often based on fear of loneliness or concerns about being a burden on loved ones. Here are some examples of the responses: "*In the hospital because I live alone and my daughter is far away.*", "*Because my son is unable to look after me.*", "*I would rather die in a hospital or a home than have my sons look after me because they are unwell. And they force me to be at home.*", "*I am afraid of death and want to have someone by my side when I die.*", "*If I die in the hospital, I don't have to think about anything.*", "*I will die in the hospital because there is no one to look after me.*", "*It would be better in the hospital because I would be better looked after there.*", "*I think the hospital is the best solution for a sick person.*", "*I should be in the hospital when I die so that I am not a burden on my family.*"

Opinion 3: I don't care where I die as long as I'm not in pain and don't suffer

11 respondents stated that they do not care where they die as long as they are free from pain. They are not concerned about the place, but mainly about avoiding suffering in old age or the last moments. Here are some examples of responses: "*It doesn't matter where it is as long as I'm not in pain.*", "*And it almost doesn't matter when I die as long as it doesn't hurt.*", "*I don't know what to say, I don't care as long as it doesn't hurt. I've never thought about where and how I want to die.*", "*All I know is that I don't want to die alone, and now it's less important where it will be.*", "*I don't even care if I die as long as I'm not in pain.*"

3.3. Preference for care in the last days of life

Pearson's chi-square test was used to analyze patients' preferences for care in the last days of life concerning gender, parenthood, and marital status, as well as fear of death, caregiver in old age, and subjective perception of health. The analysis was carried out on 93 people who had chosen one option – the hospital or own home (Table 3). The chi-square test examined the preferred type of care in the last days of life based on several observed variables (gender, parenthood, marital status, fear of death, caregiver in old age, and subjective perception of health). The proportion of respondents who prefer end-of-life care in a hospital or at home is the same for gender, fear of death, and subjective perception of health ($p > 0.05$). It can also be seen that there is a difference in the distribution, i.e., the proportion of respondents who prefer end-of-life care in a hospital or at home differs de-

Table 3. Preferred end-of-life care by gender, parenthood, marital status, fear of death, caregiver in old age, and subjective perception of health (N = 93)

		Preferred end-of-life care mode		TOTAL	χ^2 test
		Hospital	Home		
Gender	Female	22 (19.2%)	44 (46.8%)	66	$\chi^2 = 2.04$ df = 1 p = 0.153
	Male	5 (8.6%)	22 (20.9%)	27	
	TOTAL	27	66	93	
Do you have children?	No	7 (3.5%)	5 (8.5%)	12	$\chi^2 = 5.74$ df = 1 p = 0.017
	Yes	20 (23.5%)	61 (57.5%)	81	
	TOTAL	27	66	93	
Marital status	Marriage/ cohabitation	6 (11.3%)	33 (27.7%)	39	$\chi^2 = 6.07$ df = 1 p = 0.014
	Single/widowed/ divorced	21 (15.7%)	33 (38.3%)	54	
	TOTAL	27	66	93	
Fear of death	Yes	12 (11.6%)	28 (28.4%)	40	$\chi^2 = 0.03$ df = 1 p = 0.858
	No	15 (15.4%)	38 (37.6%)	53	
	TOTAL	27	66	93	
Caregiver in old age	Yes	18 (22.1%)	58 (53.9%)	76	$\chi^2 = 5.77$ df = 1 p = 0.016
	No	9 (4.9%)	8 (12.1%)	17	
	TOTAL	27	66	93	
Subjective perception of health	Healthy	7 (6.7%)	16 (16.3%)	23	$\chi^2 = 0.03$ df = 1 p = 0.864
	Sick	20 (20.3%)	50 (49.7%)	70	
	TOTAL	27	66	93	

pending on whether they have children or not ($\chi^2 = 5.74$, df = 1, $p < 0.05$). The vast majority of respondents who have children prefer home care to hospital care in the last days of life. Those who do not have children prefer home care and hospital care equally. Similarly, the chi-square test revealed that the proportion of respondents preferring end-of-life care in a hospital or at home differed according to marital status ($\chi^2 = 6.07$, df = 1, $p < 0.05$). In addition, the proportion of respondents who preferred end-of-life care in a hospital or at home also differed according to whether they had someone to care for them in old age or illness ($\chi^2 = 5.77$, df = 1, p = 0.016). The respondents were therefore equally in favor of home care in the last days of life, regardless of marital status. However, there is a difference in preference for hospital care, i.e., a greater number of respondents prefer to be cared for in a hospital if they are single, widowed, or divorced compared to those who are married or living in a non-marital partnership. Respondents who have someone to care for them in the event of illness or old age also prefer home care compared to respondents who do not have a caregiver. Hospital care is preferred by those who have a caregiver just as much as by those who do not have a caregiver.

3.4. Attitudes of older adults toward community healthcare and the quality of care

A descriptive analysis was conducted of the questionnaire, in which respondents expressed their attitudes toward community healthcare and the quality of care provided to older adults by the city, municipality, or state in general on a 5-point Likert scale, with 1 being "I strongly disagree" and 5 being "I strongly agree". The validity and reliability of the questionnaire were checked. The Cronbach's alpha of the questionnaire is $\alpha = 0.46$, and the intercorrelations between the items are between 0.73 and 0.81. It was concluded that it is not possible to create a meaningful summary indicator reflecting opinions on the quality of care of older adults, so the questionnaire was qualitatively analyzed by frequencies and percentages. For all respondents, it is important to be visited by caregivers but not by geriatric housekeepers. The vast majority of older adults in the sample are satisfied with the services provided by caregivers and geriatric housekeepers, but they also believe that the state, city, and/or municipality should do more to help older adults and improve the quality of care by providing additional care teams, organized transportation, and day centers. Accordingly, 64.2% of

respondents disagree or strongly disagree with the statement that the quality of care for older adults is high. The majority of respondents strongly agree with the statement that visits from caregivers are important to them (89.62%). These data suggest that patients need community-based healthcare in their homes. Respondents are divided on the importance of geriatric home care visits. The majority of respondents agree (43.4%) or mostly agree (10.4%) that geriatric home care visits are important to them. About 11% of respondents believe that the visits are not important to them. A large percentage of respondents are completely (91.5%) or mostly (6.6%) satisfied with the service provided by a nurse or geriatric housekeeper. A slightly smaller percentage of respondents are not satisfied with the services (0.9%), and the same number are undecided. 18.9% of respondents are indifferent, and a total of 3.8% mostly or strongly disagree with the statement that community-based care should be more widespread. The data show that only a minority of respondents consider care for older adults to be of high quality (around 16%). As many as 64% of respondents do not consider care for older adults provided by the state, city, and/or municipality to be of high quality, while 19.8% are undecided. The vast majority of respondents fully (61.3%) or mostly (33%) agree with the statement that the municipality should organize additional teams to care for older adults in their homes. Almost all respondents believe that transportation for older adults to doctors, stores, post offices, etc. should be organized, and fully (72.6%) or mostly (23.6%) agree with this statement. The view that there is an increased need for day centers with integrated transportation for older adults is supported by a large majority (86.8). Only 1.9% of respondents disagree, while 11.3% have no opinion.

4. Discussion

Demographic trends pointing to the general aging of the population can be observed in all parts of the world, including Croatia [16–18]. This trend is also accompanied by an increased need for medical care for older adults, including ensuring conditions for aging with dignity, palliative care, and dignified death [19–21]. This study aimed to investigate the preferred type of care in the last days of life of older adults (in a hospital or at home) concerning gender, marital status, parenthood, fear of death, caregiver in old age, and subjective perception of health. In addition, the respondents' attitudes toward the quality of community health services and community care, in general, were analyzed. In the analyzed sample, most of the respondents are those who maintain regular contact with their relatives, have a hobby, and have someone to take care of them when they are unable to cope, which indicates that most respondents have a well-developed social network and full leisure time as well as good care. In addition, respondents who feel healthy and are afraid of death are in the minority.

4.1. Where to spend the final days of life: a heartfelt choice

The survey results show that older adults in Istria County prefer to spend their last days at home rather than in a hospital or other health and social care facility. More precisely, about 60% of respondents would like to live and die at home in old age, and 25% of them prefer to spend their last days in a hospital. There is very little data available in Croatia about this issue, and the literature contains systematic reviews and studies showing similar figures [22–24]. Quality end-of-life care is important to ensure that all people at this stage of life, as well as their families and caregivers, have access to appropriate treatment and support [13,25]. Recent research shows that the number of deaths in hospitals is decreasing [26]. A study conducted in England and Wales found that between 2004 and 2014, the proportion of deaths occurring at home and in nursing homes rose from 18.3% to 22.9% and from 16.7% to 21.2%, respectively. In contrast, the proportion of deaths in hospitals fell from 57.9% to 48.1% over the same period [27]. The year 2020 was particularly challenging and full of changes caused by the COVID-19 virus. A survey conducted in England in 2020 shows that there were 167 000 deaths in private households that year, compared to 125 000 deaths between 2015 and 2019 [28]. Most deaths related to COVID-19 occurred in hospitals, while other diseases, such as cancer, were neglected, so these patients stayed at home and unfortunately died in their homes partly due to inadequate treatment. According to the study, hospital mortality was 4% higher than the five-year average. However, if deaths caused by COVID-19 are excluded, hospital mortality is 16% lower than the average [28]. People who die from mental disorders or infectious diseases are most likely to die in the hospital, very rarely at home [13]. Older adults who die from respiratory or digestive diseases rarely stay at home in the last month, as they are usually hospitalized at some point [29–31]. For people dying from cardiovascular disease, staying at home until death is almost as common as hospitalization [31,32]. Regardless of the cause of death, the frequency of hospitalization increases as death approaches [33–35]. For neurological diseases, 15% are also treated in the hospital, while 14% stay at home, and for respiratory diseases, 18% are treated in the hospital and die there, while 19% stay at home [36]. In an article published in *The Guardian* in 2022, it was reported that shortly after the COVID-19 pandemic in the UK, 90 more people died at home every day than expected [37]. The "Fin de vie en France" study on patients' medical decisions at the end of life found that about 55% of people wanted to die at home, 25% in a nursing home, and 17% in a hospital [38]. In our study, the respondents who would like to spend their last days at home believe that they would be calmer and happier there because a person should stay in the environment where they have spent most of their life with their loved ones. New research is certainly needed to improve the quality of care for older adults who wish to spend their final days at home [23]. Older adults in hospitals may fear contracting new infections from various viruses. This choice may also be influenced by concerns about the quality of medical care they would receive during their last days or hours in a hospital setting [39]. Our research has found that preference for hospital care at the end of life is more often driven by a fear of dying alone or being a burden to others, as they believe this could be a burden on their family. According to the

National Strategy for the Development of the Healthcare System of the Republic of Croatia 2021–2027, the most common reasons for preferring hospitalization are untreated symptoms, the inability of the family to provide continuous 24-hour care, and the lack of professional support for family members caring for the patient [40].

4.2. Preventing pain and suffering: the primary goal of a good death

Respondents who stated that it did not matter to them where they died cited preventing pain and suffering as the main criterion for a "good" death. Accessible palliative care in the family and at home would be a significant step forward to a dignified end of life at home. Pain and suffering often lead to feelings of abandonment and loneliness in older adults at the end of their lives; therefore, pain management is a key priority in palliative care [41]. Relieving pain-related suffering brings relief not only to the patient but also to the patient's family and ultimately improves the quality of life of the person approaching the end of life [42,43]. A large European study identified four factors associated with the preference for dying at home in oncology patients. The authors found that patients younger than 70 years of age for whom it is important to die in a preferred place, who remain optimistic and who involve their family in the decision-making when they are no longer able to decide for themselves, are more likely to prefer dying at home [44].

4.3. Factors influencing end-of-life care preferences: an analysis of demographic and personal factors

In our study, we investigated the differences in respondents' preferences as to whether they would like to spend their final days at home or in the hospital. We considered factors such as gender, parenthood, marital status, fear of death, caregiver in old age, and subjective perception of health. We found that the preferred type of end-of-life care was not statistically significantly related to gender, fear of death, or subjective perception of health. However, those who have children prefer home care at a higher percentage than hospital care, while those who do not have children prefer home and hospital care equally. In addition, a higher percentage of single, widowed, or divorced people prefer hospital care than married or cohabiting people. Home care is equally preferred regardless of marital status. As the partner is the main carer when care is needed, living with a partner enables home care, but more often for men than women. A study by Rodrigues et al. [45] came to similar conclusions, finding that men are less likely to identify as caregivers or be recognized as such by their partners. In addition, care provided by a spouse is more often recognized by both partners when the caregiver is a woman. Those who have someone to look after them in the event of illness or old age also prefer home care to a greater extent than those who do not have a caregiver.

4.4. Exploring respondents' attitudes toward community and elderly care

The data showed that personal healthcare is viewed as necessary by patients, while visits from geriatric housekeepers are considered somewhat less important. Regarding satisfaction with outpatient care services, over 90% of respondents express satisfaction with visits from nurses or geriatric housekeepers. Furthermore, most respondents believe that outpatient care should be utilized more often. However, when assessing the quality of community-based care for older adults (provided by the city, municipality, and state), the ratings are lower. Only a small percentage (around 16%) consider the care for older adults to be of high quality, while 64% of respondents feel that the care provided by the state, city, or municipality is not of a high standard. These results are in line with the research findings by Fenton et al. [46], who emphasize the importance of the social environment, communication, and information as key factors for successful aging. These findings suggest that new forms of assistance for the elderly, additional facilities, and additional manpower should be systematically introduced and planned. The increasing number of older adults requires changes in education, healthcare, and social services.

4.5. Limitations of the study

This research has some weaknesses. There is a lack of research in the literature in Europe, especially in the Republic of Croatia, on the topic of choosing the place of death, so this work can raise awareness of the importance of this topic for the improvement of elderly care and palliative care. However, the use of categorical variables, qualitative analysis, and nonparametric statistical methods limits the conclusions about cause-effect relationships. In addition, the questionnaire on older people's attitudes toward the quality of care was only analyzed descriptively, so its validity and reliability were not tested. To quantitatively analyze attitude questionnaires, it would be necessary to conduct a pilot study with the original items and only then use the analysis to create a final questionnaire to guide future research.

5. Conclusion

The research results will guide healthcare institutions in Istria County and beyond to enhance end-of-life care for the elderly. A holistic approach is essential to ensure that patients wishing to die at home can do so. Istria County, like the rest of the country, lacks adequate care options for the elderly despite their increasing numbers. While healthcare quality has improved, the needs and wishes of the elderly have been overlooked. To enhance the quality of life and the dying process, collaboration among all social actors is crucial. The state and local governments must invest more in raising awareness among the youth about supporting the elderly. Strengthening palliative care and providing it at home for those in need must be prioritized.

Data availability statement

The data are available on request from the corresponding author.

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References

1. Državni zavod za statistiku (Croatian Bureau of Statistics). https://dzs.gov.hr/ (accessed 2025-03-18).
2. Vuletić, G. and Stapić, M. Kvaliteta života i doživljaj usamljenosti kod osoba starije životne dobi (Quality of life and the experience of loneliness in older adults). *Klin. Psihol.*, 2013, **6**, 45–61.
3. Akdeniz, M., Yardımcı, B. and Kavukcu, E. Ethical considerations at the end-of-life care. *SAGE Open Med.*, 2021, **9**. https://doi.org/10.1177/20503121211000918
4. Xia, Q., Kularatna, M., Virdun, C., Button, E., Close, E. and Carter, H. E. Preferences for palliative and end-of-life care: a systematic review of discrete choice experiments. *Value Health*, 2023, **26**(12), 1795–1809. https://doi.org/10.1016/j.jval.2023.07.005
5. Bloomer, M. J. End-of-life care. In *Encyclopedia of Gerontology and Population Aging* (Gu, D. and Dupre, M. E., eds). Springer, Cham, 2021, 1655–1665. https://doi.org/10.1007/978-3-030-22009-9_747
6. Pinto, S., Lopes, S., de Sousa, A. B., Delalibera, M. and Gomes, B. Patient and family preferences about place of end-of-life care and death: an umbrella review. *J. Pain Symptom Manag.*, 2024, **67**(5), e439–e452. https://doi.org/10.1016/j.jpainsymman.2024.01.014
7. Jedvaj, S., Štambuk, A. and Rusac, S. Demografsko starenje stanovništva i skrb za starije osobe u Hrvatskoj (Demographic ageing of the population and care for the elderly in Croatia). *Socijal. teme*, 2014, **1**(1), 135–154.
8. Havelka, M. *Zdravstvena psihologija (Health Psychology)*. Naklada Slap, Jastrebarsko, 1998.
9. Harmell, A. L., Jeste, D. and Depp, C. Strategies for successful aging: a research update. *Curr. Psychiatry Rep.*, 2014, **16**(10), 476. https://doi.org/10.1007/s11920-014-0476-6
10. Waddell, C., Van Doorn, G., Power, G. and Statham, D. From successful ageing to ageing well: a narrative review. *The Gerontologist*, 2025, **65**(1), gnae109. https://doi.org/10.1093/geront/gnae109
11. Husu, E. N. Older and better: a narrative review of successful aging and adaptation to pain in late life. *Pain Physician*, 2024, **27**(7), E651–E659.
12. Brajković, L. Kvaliteta života u trećoj životnoj dobi nakon umirovljenja (Quality of life in the old age after retirement). In *Kvaliteta života i zdravlje (Quality of Life and Health)* (Vuletić, G., ed.). Filozofski fakultet Sveučilišta u Zagrebu, Osijek, 2011.
13. Duraković, Z. *Gerijatrija: medicina starije dobi (Geriatrics: Medicine of Old Age)*. C. T. – Poslovne informacije, Zagreb, 2007.
14. Stephens, M. A. EDF statistics for goodness of fit and some comparisons. *J. Am. Stat. Assoc.*, 1974, **69**(347), 730–737. https://doi.org/10.2307/2286009
15. McHugh, M. L. The chi-square test of independence. *Biochem. Med.*, 2013, **23**, 143–149.
16. NCBI Bookshelf. *Aging and the Macroeconomy: Long-Term Implications of an Older Population*. https://www.ncbi.nlm.nih.gov/books/NBK148831/ (accessed 2025-03-18).
17. Štambuk, A. Jasminka Despot Lučanin: iskustvo starenja. Doprinos teoriji starenja (Jasminka Despot Lučanin: the experience of aging. Contribution to the theory of aging). *Rev. Soc. Polit.*, 2003, **10**(2), 235–237. https://doi.org/10.3935/rsp.v10i2.129
18. Državni zavod za statistiku (Croatian Bureau of Statistics). *Demografska slika Europe – starenje stanovništva (Demography of Europe – an ageing population)*. https://web.dzs.hr/demography/bloc-1c.html?lang=hr/ (accessed 2025-03-18).
19. Clancy, A., Simonsen, N., Lind, J., Liveng, A. and Johannessen, A. The meaning of dignity for older adults: a meta-synthesis. *Nurs. Ethics*, 2021, **28**(6), 878–894. https://doi.org/10.1177/0969733020928134
20. Glyn-Blanco, M. B., Lucchetti, G. and Badanta, B. How do cultural factors influence the provision of end-of-life care? A narrative review. *Appl. Nurs. Res.*, 2023, **73**, 151720. https://doi.org/10.1016/j.apnr.2023.151720
21. Csikai, E. L. and Maynard, Q. R. How do older adults define a good death? A scoping review. *Midwest Soc. Sci. J.*, 2024, **27**(1), 20–36.
22. Poslon, L. Ljudsko dostojanstvo i kraj života (Human dignity and the end of life). *Obnovljeni Život*, 2022, **77**(2), 235–248. https://doi.org/10.31337/oz.77.2.7
23. Laklija, M., Rusac, S. and Žganec, N. Trendovi u skrbi za osobe starije životne dobi u Republici Hrvatskoj i u zemljama Europske Unije (Trends in the care for the elderly in the Republic of Croatia and EU countries). *Rev. Soc. Polit.*, 2008, **15**(2), 171–188. https://doi.org/10.3935/rsp.v15i2.743
24. Tucak Junaković, I. and Nekić, M. Percepcija uspješnog starenja u starijih osoba (Perception of successful ageing in older adults). *Acta Iadert.*, 2016, **13**(2), 0–0.
25. Huffman, J. L. and Harmer, B. End-of-life care. http://www.ncbi.nlm.nih.gov/books/NBK544276/ (accessed 2025-03-18).
26. The Max Planck Society. *Dying in hospital*. https://www.mpg.de/12545175/declining-trend-but-not-for-everyone/ (accessed 2025-03-18).
27. Bone, A. E., Gomes, B., Etkind, S. N., Verne, J., Murtagh, F. E. M., Evans, C. J. et al. What is the impact of population ageing on the future provision of end-of-life care? Population-based projections of place of death. *Palliat. Med.*, 2018, **32**(2), 329–336. https://doi.org/10.1177/0269216317734435
28. ONS (Office for National Statistics). *Deaths at home increased by a third in 2020, while deaths in hospitals fell except for COVID-19*. https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/deathsathomeincreasedbyathirdin2020whiledeathsinhospitalsfellexceptforcovid19/2021-05-07/ (accessed 2025-03-18).
29. Meng, Z., Cheng, L., Hu, X. and Chen, Q. Risk factors for in-hospital death in elderly patients over 65 years of age with dementia: a retrospective cross-sectional study. *Medicine (Baltimore)*, 2022, **101**(26), e29737. https://doi.org/10.1097/md.0000000000029737
30. Barbiellini Amidei, C., Macciò, S., Cantarutti, A., Gessoni, F., Bardin, A., Zanier, L. et al. Hospitalizations and emergency department visits trends among elderly individuals in proximity to death: a retrospective population-based study. *Sci. Rep.*, 2021, **11**(1), 21472. https://doi.org/10.1038/s41598-021-00648-1
31. Hrvatski zavod za javno zdravstvo (Croatian Institute of Public Health). *Hrvatski zdravstveno-statistički ljetopis za 2023. g. – tablični podaci (Croatian Health Statistical Yearbook for 2023 – Tabular Data)*. https://www.hzjz.hr/hrvatski-zdravstveno-statisticki-ljetopis/hrvatski-zdravstveno-statisticki-ljetopis-za-2023-g-tablicni-podaci/ (accessed 2025-03-18).
32. Warraich, H. J., Hernandez, A. F. and Allen, L. A. How medicine has changed the end of life for patients with cardiovascular disease. *J. Am. Coll. Cardiol.*, 2017, **70**(1), 1276–1289. https://doi.org/10.1016/j.jacc.2017.07.735
33. NCBI Bookshelf. *Approaching Death: Improving Care at the End of Life*. https://www.ncbi.nlm.nih.gov/books/NBK233604/ (accessed 2025-03-18).
34. Hrvatski zavod za javno zdravstvo (Croatian Institute of Public Health). *Izvješće o smrtnosti prema listi odabranih uzroka smrti u 2023 (Report on mortality by selected causes of death in 2023)*. https://www.hzjz.hr/periodicne-publikacije/izvjesce-o-smrtnosti-prema-listi-odabranih-uzroka-smrti-u-2023/ (accessed 2025-03-18).
35. Hrvatski zavod za javno zdravstvo (Croatian Institute of Public Health). *Izvješće – rad bolnica u Hrvatskoj u 2023. godini (Report – hospital work in Croatia in 2023)*. https://www.hzjz.hr/

periodicne-publikacije/izvjesce-rad-bolnica-u-hrvatskoj-u-2023-godini/ (accessed 2025-03-18).
36. Pennec, S., Gaymu, J., Riou, F., Morand, E., Pontone, S., Aubry, R. et al. A majority of people would prefer to die at home, but few actually do so. *Popul. Soc.*, 2015, **524**(7), 1–4.
37. Aguilar García, C. Almost 90 more people died at home every day than expected in past year. https://www.theguardian.com/society/2022/sep/24/almost-90-more-people-died-at-home-every-day-than-expected-in-past-year/ (accessed 2025-03-18).
38. Pennec, S., Monnier, A., Pontone, S. and Aubry, R. End-of-life medical decisions in France: a death certificate follow-up survey 5 years after the 2005 act of parliament on patients' rights and end of life. *BMC Palliat. Care*, 2012, **11**, 25. https://doi.org/10.1186/1472-684X-11-25
39. Carr, D. and Luth, E. A. Well-being at the end of life. *Annu. Rev. Sociol.*, 2019, **45**, 515–534. https://doi.org/10.1146/annurev-soc-073018-022524
40. Ministarstvo zdravstva Republike Hrvatske (Ministry of Health of the Republic of Croatia). *Nacionalni plan razvoja zdravstva za razdoblje od 2021. do 2027. godine (National plan for the development of health care for the period 2021–2027)*. https://zdravlje.gov.hr/UserDocsImages/2022%20Objave/Nacionalni%20plan%20razvoja%20zdravstva%202021.-2027..pdf (accessed 2025-03-18).
41. Sinha, A. and Vashisht, R. End-of-life evaluation and management of pain. http://www.ncbi.nlm.nih.gov/books/NBK568753/ (accessed 2025-03-18).
42. Morrison, L. J. and Morrison, R. S. Palliative care and pain management. *Med. Clin. North Am.*, 2006, **90**(5), 983–1004. https://doi.org/10.1016/j.mcna.2006.05.016
43. Rummans, T. A., Bostwick, J. M. and Clark, M. M. Maintaining quality of life at the end of life. *Mayo Clin. Proc.*, 2000, **75**(12), 1305–1310. https://doi.org/10.4065/75.12.1305
44. Gomes, B., Higginson, I. J., Calanzani, N., Cohen, J., Deliens, L., Daveson, B. A. et al. Preferences for place of death if faced with advanced cancer: a population survey in England, Flanders, Germany, Italy, the Netherlands, Portugal and Spain. *Ann. Oncol.*, 2012, **23**(8), 2006–2015. https://doi.org/10.1093/annonc/mdr602
45. Rodrigues, R., Simmons, C., Zólyomi, E., Vafaei, A., Rehnberg, J., Kadi, S. et al. Depends on whom you ask: discordance in reporting spousal care between older women and men across European welfare states. *Arch. Gerontol. Geriatr.*, 2024, **125**, 105518.
46. Fenton, M. R., Hoppmann, C. A., Boger, J., Dalton, B. H., Komisar, V., Sakakibara, B. M. et al. Growing older at home: Canadians' meaning of aging in place. *J. Aging Environ.*, 2024, **1**, 23. https://doi.org/10.1080/26892618.2024.2329869

Eakate hoiakud elulõpuhoolduse eelistuste suhtes

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Rahvastiku vananemine on üleilmne demograafiline suundumus, mida täheldatakse ka Horvaatias. See toob kaasa täiendavaid väljakutseid üksikisikutele, peredele ja kogukondadele. Üks tähtsamaid eesmärke on pikendada eluiga ja suurendada tervena elatud aastate arvu. Seetõttu on oluline tagada elu lõpufaasis kvaliteetne hooldus, arvestades patsientide, perede ja hooldajate vajadustega. Uuringu põhieesmärk oli uurida eakate (üle 60-aastaste) eelistatud hooldusviisi viimastel elupäevadel. Horvaatia Istria maakonna ambulatoorsete tervishoiuteenuste saajate seas viidi läbi läbilõikeküsitlus. Uuringus osales 106 eakat, kellest 72 (67,9%) olid naised ja 34 (32,1%) mehed vanuses 60–98 aastat. Tulemused näitasid, et Istria maakonna eakad sooviksid pigem oma elu viimased päevad veeta kodus kui haiglas. Need, kes eelistavad elu lõpus hospitaliseerimist, toovad peamiste põhjustena välja hirmu üksi suremise ees ning mure pereliikmete koormamise pärast. Lisaks eakate elukvaliteedi pidevale ja terviklikule parandamisele peaksid tervishoiusüsteemid pöörama rohkem tähelepanu väärika elulõpu tagamisele. See tähendab, et inimene peaks veetma viimased hetked ja surema seal, kus ta ise soovib, ning iga inimest tuleks kohelda terviklikult, arvestades tema vajadusi ja parandades kodust palliatiivravi.