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Selected Aspects of Knowledge Management in the Care of Dementia Patients

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ABSTRACT:
Dementia is characterized by a progressive cognitive decline, memory impairment, and disability. Alzheimer's disease (AD) accounts for 60–70% of cases, followed by vascular and mixed dementia. Given the projected trends in population ageing and population growth, the number of people with dementia is expected to increase. Stakeholders involved in community dementia support services often work on their own and without coordination with other services. These circumstances can result in a lack of information and support for people with dementia and their family caregivers at home. Caregivers of people with dementia find it extremely difficult to choose the best care method because of complex environments and the variable symptoms of dementia. This contribution aims to assess and compare community health professionals' dementia knowledge, attitudes and care approaches in Poland and the Czech Republic

Keywords: knowledge management, dementia care, healthcare

1. Introduction

There are over 55 million people worldwide living with dementia in 2020. This number will almost double every 20 years, reaching 78 million in 2030 and 139 million in 2050. Much of the increase will be in developing countries[4]. Already, 60% of people with dementia live in low and middle-income countries, but by 2050, this will rise to 71%. The most common cause of dementia is Alzheimer's disease (AD). The economic impact of dementia is already enormous. From 1990 to 2019, the incidence and prevalence of Alzheimer's disease and other dementias increased by 147.95 and 160.84%, respectively. Globally, the incidence (147.95%), prevalence (160.84%), and the number of deaths (189.29%) due to dementia increased dramatically over the study period (Xue Li et al., 2022). Dementia and Alzheimer's disease are considered the sixth leading cause[5] of death (1,639,085 deaths in 2020). The annual cost per person with dementia is estimated at almost €20,000. This estimation exceeds the assumed costs for patients with cancer or cardiovascular diseases (Tomaskova et al, 2016). The economic impacts of AD are shown

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[4] https://www.alzint.org/about/dementia-facts-figures/dementia-statistics
[5] https://www.worldlifeexpectancy.com/world-rankings-total-deaths

in various studies. According to Nandi et al. (2022) The World Alzheimer Report (2015) and other studies have projected the global direct cost of dementia care (including ADRDs and other dementias) to be $2 trillion by 2030, while the direct and indirect cost (which includes lost wages of caregivers) of care is estimated to rise to $9.12 trillion by 2050. Among the subtypes of dementia, AD is generally considered the most common, accounting for between 60% and 80% of all dementia cases[6]. AD is a slowly progressing neurodegenerative brain disease with irreversible brain effects. American National Institute of Aging[7] decsribes dementia as the loss of cognitive functioning — thinking, remembering, and reasoning — to such an extent that it interferes with a person's daily life and activities. AD was first identified more than 100 years ago, but 70 years passed before it was recognized as the most common cause of dementia and a major killer (Katzman, 1976). AD is a neurodegenerative disease, leading to the need for complete care within several years after clinical diagnosis. The greatest risk factor for AD is age. The majority of people with AD are diagnosed at age 65 or older. In this context, it is extremely important to properly use the potential of knowledge, the value of which for entities performing medical and care activities is systematically increasing. According to Mirczak (2018) therapeutic education of the family of a patient with dementia is important in this respect. Whitlatch and Orsulic-Jears (2018) also recommend the provision of targeted information, education, and support to individuals and their families. The use of various methods and techniques of knowledge management therefore requires a distinction between explicit knowledge (so-called formal - articulated, explicit) and implicit knowledge (so-called hidden - unarticulated, unclear). Explicit knowledge is generally easily accessible. It can be obtained and presented using, among others: verbal communication, various types of documents, manuals, training materials, and instructions that may be collected in paper or electronic form. On the other hand, there is knowledge hidden in the human mind, which is the result of experience, special skills and predispositions of a person. Such knowledge is more difficult to acquire, formalize and transfer to other people (Karkowski & Korczak, 2016; Kosklin et al. 2023. Moore et. al (2019) confirm that the effectiveness of education about dementia progression on carers' knowledge and mental health cannot be adequately confirmed or refuted. Hence, therapeutic education, understanding dementia and building a support network, especially consultations with experts, and help from family and friends can be a valuable source of information, especially for extracting hidden knowledge. This is what networks of informal carers of dementia patients are trying to promote, e.g. Alzheimer´s Caregivers Network[8], Alzheimer´s Association[9], Česká alzheimerovská společnost in the Czechia[10] or Polish Alzheimer´s Association[11] and many others. In formal care there exist some effective strategies which can caregivers use:

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[6] https://www.alz.org/alzheimers-dementia/facts-figures

[7] https://www.nia.nih.gov/health/alzheimers-and-dementia

[8] alheimercaregivers.org

[9] alz.org/help-support/caregiving/

[10] alzheimer.cz

[11] alzint.org

- mentorship and shadowing – pairing less experienced caregivers with more experienced ones – this is common practice in residential facilities in Czechia and elsewhere,
- storytelling and case studies – sharing real-life scenarios and experiences (in Czechia caregivers in residential care facilities must regularly attend training courses where trainers from practice give lectures),
- regular debriefing sessions - holding discussions after shifts or specific events can help caregivers reflect on their experiences and share insights with each other, which is routine practice in residential facilities - regular care team meetings,
- encouraging a learning culture: fostering an environment where countinuous learning and knowledge sharing are valued can make it easier for implicit knowledge to passed on,
- use of technology: tools like video recordings of best practices or interactive training modules can help capture and disseminate implicit knowledge.

2. Methods

To find the optimal research method or tool for information needs in the field of dementia care in Poland and the Czech Republic, elements of a systematic review were used. The use of the systematic review method was limited to developing a literature search strategy on the subject along with searching bibliographic databases, selecting studies for the review based on predefined criteria for inclusion and exclusion from the review (in the first stage based on titles and abstracts, in the second stage based on the analysis of full publication texts). For this publication, among others: the Scopus database for the years 2020-2024 was searched using keywords and restrictions introduced in the advanced search. The results selected from the database were entered into the VOSviewer program (ver.1.6.18), to analyze the connections obtained from the literature list for a given thematic area. Eurostat regional statistics data were used to conduct comparative analyses.

3. Theoretical Background

3.1. Knowledge management

The increasing importance of knowledge has become the driving force of all changes in the economy because the development and exploitation of knowledge is the foundation for the functioning of modern organizations, which become learning, intelligent systems capable of responding to environmental challenges. The processes that are most often identified with knowledge management include: locating knowledge, acquiring knowledge, developing knowledge, sharing and disseminating knowledge, use of knowledge and preservation of knowledge (Wełyczko & Landmann, 2010, Wziątek – Stasko et al., 2022). Jashapara (2005) and many other authors (Zieba, 2021) in the research field define knowledge management as an effective learning process related to the search, exploitation and dissemination of human knowledge (explicit and hidden), using appropriate technologies and the cultural environment, the aim of which is to increase intellectual capital and organizational efficiency. It seems that the origins of knowledge management are largely the result of the evolution of science and the ways of thinking of theoreticians and practitioners. The creation and implementation of knowledge management are closely related to the development of various scientific disciplines and organizational management methods (Maier, 2007). Therefore, it seems interesting to consider knowledge management in the context of caring for people with dementia (Jackson et al. 2023). There are many studies in the professional literature on the implementation of the concept of knowledge management within medical informatics or artificial intelligence. For example, in the research by (Gyungha et al., 2021; Heinrich et al. 2016), we can find an ontology-based knowledge management system developed for the care of people with dementia, which can provide the caregiver with access to detailed information on how to deal with a person struggling with dementia. In turn, the research by (Gall et al. 2020). focused on a self-organizing knowledge management system based on the CareShare application, which enables the reduction of communication gaps between the patient and staff in nursing homes for people with dementia. It was also indicated that self-organizing knowledge management systems could provide a means to individualize dementia care in the context of increasing fragmentation and economization of care. However, it seems that knowledge management considered in the context of care services is still insufficient, because, as indicated by, among others, Heinrich et al., dementia support services are often not effectively linked to the various stakeholders in the home care environment. As a result, people with disabilities and their family carers are often not well informed about the services available in their facilities and therefore do not use support structures effectively. Taking into account the above, a bibliometric analysis was carried out taking into account publications from 2020-2024 based on keywords and restrictions introduced in the advanced search in the SCOPUS database, which allowed for generating a map using the VOSviewer program As part of an attempt to interpret keywords (knowledge management, dementia care, health care) the type of analysis "co-occurrence" - "counting method: full counting" and the unit of analysis of all keywords - "unit of analysis - all keywords" were selected.

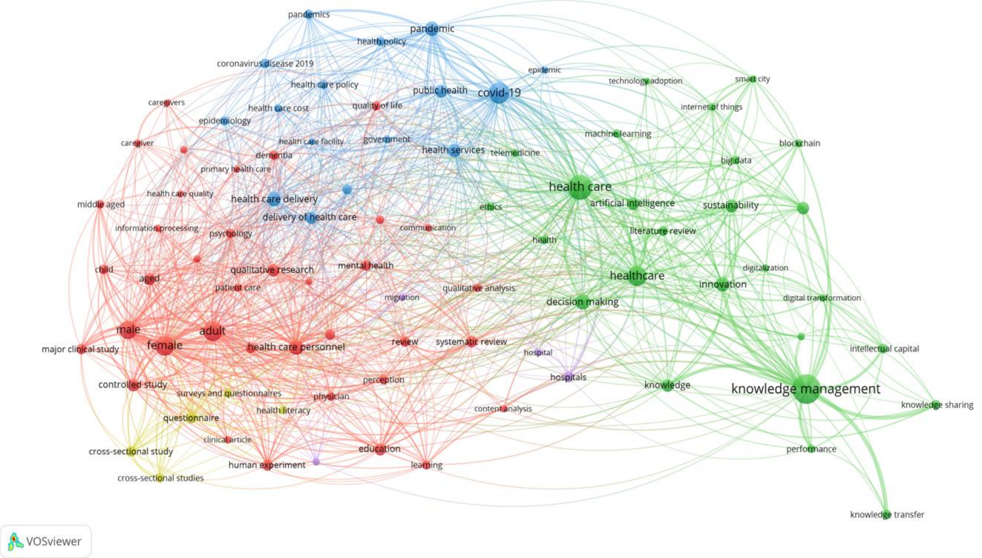

Figure 1: VOSviewer term map visualization for level 1. Source: Own analysis in VOSviewer

To determine the leading keywords, it was assumed that the minimum number of occurrences of a given word is 5 to intensify the importance of words and enable the identification of elements on the map (. Analyzing all the results obtained based on the created map, it should be concluded that research taking into account aspects of knowledge management considered in the context of health care is still valid and considered in a multi-threaded manner. However, from the perspective of care services addressed to people affected by dementia and their families, there is an urgent need to expand knowledge in this area, as evidenced by the lack of direct connections within the clusters between the keywords: dementia, and knowledge management (Fig. 1). Policymakers try integrate knowledge management strategies into national dementia plans by focusing on several key areas:

- data collection and analysis –robust information systems collceting, analyizing and sharing data on dementia prevalence, risk factors and care outcomes which can then help in decision making an tracking processes,
- stakeholder engagement – involving healthcare providers, caregivers, patients and researchers to obtain diverse perspectives for planning and implementation processes,
- training and education for healthcare professionals and caregivers – to enhance the quality of care,
- public awareness campaings – to reduce stigma and encourage early diagnosis and intervention,
- monitoring and evaluation – implementing mechanisms to monitor and evaluate the effectiveness of dementia plans and their improvements.

The above can be confirmed by the fact that although public awareness and scientific knowledge of Alzheimer's disease have increased significantly in recent years, according to the European Initiative on Alzheimer's disease and other dementias, for example, in EU countries there are striking differences between Member States in terms of therapeutic options, training and qualifications of personnel or availability of equipment necessary to develop a diagnosis and conduct clinical trials in this area (Boeree, Zoller and Huijsman, 2021; Blandi, Clemens, Brand, Odone, 2024) . European countries have various national dementia plans that focus on improving diagnosis, care and support for people with dementia and their families with main goals: France[12] - improving diagnosis, research and care, early diagnosis, support for carers and the development of specialised dementia centres; Germany[13] - improving the quality of care, education of health professionals, raising public awareness and supporting research; Sweden - a comprehensive plan that includes prevention, early diagnosis and support for people with dementia and their families, research and innovation in dementia care; Italy[14] – improvement of the quality of life of people with dementia, early diagnosis, support for carers and the development of specialised services. These plans share common elements such as early diagnosis, support

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[12] Neurodegenerative Diseases Roadmap 2021-2022 (https://www.francealzheimer.org)

[13] Nationale Demenzstrategie (https://www.nationale-demenzstrategie.de)

[14] https://www.salute.gov.it/portale/demenze/homeDemenze.jsp

for carers and public awareness raising, but differ in their specific approaches and priorities.

In the Czech Republic, the diagnosis and care of patients with Alzheimer's disease (AD) and other dementias are dealt with by physicians of various specialties (in alphabetical order geriatrics, neurology, psychiatry, general medicine). Each of these specialties has its own recommended procedures for the diagnosis and treatment of cognitive disorders, which partly overlap, partly differ. Thus, until now, there has been no single recommended practice with interdisciplinary validity. This can help overome The National Action Plan[15] for AN and Related Disorders 2020-2030 (NAPAD) approved by the Czech Government, which has produced new interdisciplinary recommendations in order to unify diagnostic and therapeutic approaches across disciplines, and proposing a pervasive system defining the role of the different disciplines involved. Poland[16] is currently working on a national dementia strategy.

An additional problem within the EU is the rather weak international cooperation, which leads to fragmentation and limited exchange of knowledge and best practices between Member States[17].

4. Results

4.1. Demographics and epidemiology of dementia in the Czech Republic and Poland

Before comparing the prevalence of dementia in the Czech Republic and Poland, it is worth looking at their position within Europe. This is shown in Figure 2.

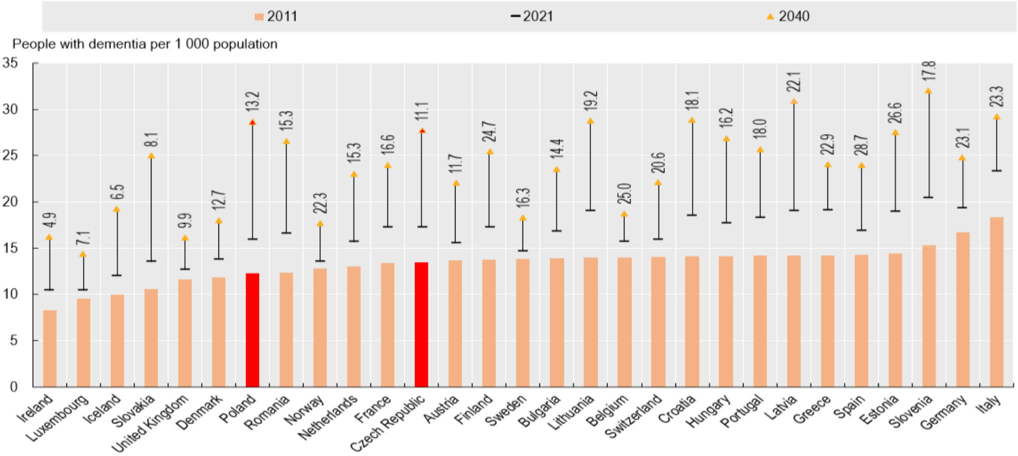

Figure 2: Estimated prevalence of dementia in Europe, 2011, 2021 and 2040
Source: Modified according to the Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease Study 2019. (Available from https://stat.link/q1boiy)

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[15] https://www.reformapsychiatrie.cz/sites/default/files/2021-07/NAPAD-2020-2030_FINAL_final-cs-en-R-C.pdf

[16] https://www.gov.pl/web/zdrowie/wiceminister-zdrowia-wojciech-konieczny-bierze-udzial-w-36-tej-globalnej-konferencji-poswieconej-chorobie-alzheimera

[17] See: https://www.europarl.europa.eu/doceo/document/TA-7-2011-0016_EN.html

In 2011, the number of people with dementia per 1000 inhabitants in the Czech Republic (13.5) differed from the average of the population (13.3) by 0.2 percent, while in Poland (12.3) it was 1 percent lower. Ten years later (2021), the prevalence value in the Czech Republic (17.2) is already slightly above the average (16.4), while in Poland (16.2) it is still below it. Estimates for 2040 are already above the European average (23.8) for both populations (27.7 - Czech Republic, 28.7 - PL). According to these estimates, the prevalence of dementia should increase faster in Poland, 2.34 times in the period 2011-2040 (2.05 times in the Czech Republic). The average projected increase for the set of countries is 80%. The number of people suffering from dementia (Alzheimer's disease) has more than doubled in the Czech Republic and since 1990, exceeding 183,000, says a report on dementia issued by the Czech Alzheimer Society (CAS). However, the Czech Republic lags behind advanced countries in the care of these patients. According to experts' calculations and estimates, every other person over 90, one in five over 80 and one in 13 over 65 suffer from dementia in the Czech Republic. Two-thirds of the patients are women as they live longer than men in general.The elderly over 65 make up one-fifth (more than 2.2 million) of the 10.9-million population of the Czech Republic, according to the Czech Statistical Office (CSU) data. There are more than 67,000 people over 90 in the country. According to the Population Projection of the Czech Republic, the share of the population aged 65 and over will increase to 34.1% by the projection horizon.The rise in the number of very old people is the most significant demographic change. According to the CAS, care for patients suffering from dementia is not interconnected in the Czech Republic, it is partially provided by the health care sector and partially by social services. Long-term integrated health and social care does not exist in the Czech Republic yet. In neighbouring Germany and Austria, one-quarter and one-third of such patients, respectively, receive the necessary care, while in the Czech Republic it is less than one-tenth of Alzheimer patients. Roughly one-fifth of people in senior homes suffer from dementia. The capacities offered by the regions, church and non-profit organisations as well as private providers have been only slowly rising. Family or friends are looking after some 100,000 Alzheimer patients.

By 2023, the proportion of people over 65 in the Polish population will be almost 20%. The risk of developing Alzheimer's disease after the age of 65 practically doubles with every additional five years[18]. This means that 3% of people aged 65-69, 6% of people aged 70-74 and almost half of people aged 85 and over will develop Alzheimer's disease. It is important that addressing dementia becomes a public health priority in Poland. In Poland, dementia due to Alzheimer's disease could affect more than 1.2 million people by 2050.

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[18] https://alzheimer-waw.pl/

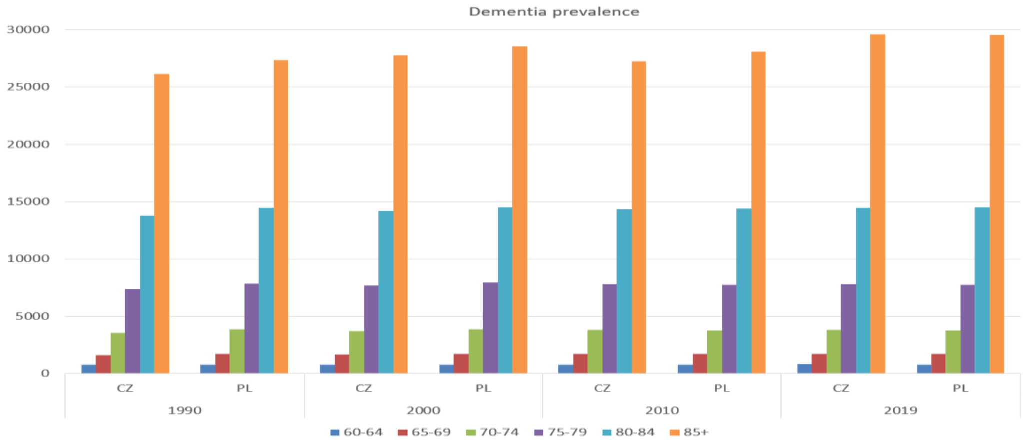

Figure 3: Dementia prevalence in the Czech Republic and Poland development 1990 – 2019
Source: Own work based on: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from https://vizhub.healthdata.org/gbd-results/

Figure 3 shows a significant increase in the prevalence of dementia with age (especially over the age of 80). In general, the number of people affected in a given age group doubles every five years after the age of 60. There are very few gender differences in the prevalence of dementia within the same age group. However, more women than men are affected overall, especially after the age of 85, due to the higher life expectancy of women[19]. It is in this age group that the greatest increase in the number of cases is seen. Risk factors for developing Alzheimer's disease are age, gender, genetic predisposition, education, unhealthy diet, alcohol, smoking, head injury, depression, low blood levels of antioxidants, nutrient deficiencies in childhood and adulthood, overall health, and aluminium. Largely related to a person's overall lifestyle. For this reason, it is useful to compare selected indicators related to the above-mentioned risk factors and dementia prevalence in the Czech Republic and Poland.

Table 1: Risk factors of dementia and Alzheimer - Czech Republic and Poland comparison 2020

Factor	**Czech Republic**		**Poland**	
	males	females	males	females
life expectancy 1960	67.5	73.3	64.9	70.6
life expectancy 2019	76.3	81.9	74.5	81.9
Healthy Life Expectancy 2020	67.0	70.6	65.9	71.3
smoking (%)	33.4	23.5	28.8	19.0
obesity (%)	26.4	25.4	23.7	22.2

Source: Own work based on: World Life Expectancy.com, 2020. (Available from https://www.worldlifeexpectancy.com/)

Between 1960 and 2019, life expectancy increased by more than 10% in both countries (Table 1), more in Poland (by 15% for men and 16% for women, while in the

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[19] https://www.nzip.cz/clanek/1314-alzheimerova-choroba

Czech Republic by 13% for men and 12% for women). This is confirmed by the data in Table 2. The share of seniors over 65 years of age in both countries is close to one-fifth of the population, while the share of seniors over 85 years of age in Poland exceeded 2% of the population, indicating a faster demographic ageing process in this country. The Czech Republic has higher levels of risk factors for smoking and obesity in both sexes. There is also a higher healthy life expectancy for men than in Poland, on the other hand, Polish women have a higher value of this indicator.

Table 2: Risk factors of dementia and Alzheimer - Czech Republic and Poland comparison 2020

Characteristic	Czech Republic	Poland
population 65+ (%)	19.9	18.2
population 85+ (%)	1.9	2.1
literacy (%)	99	99.8
sex ratio 65+ (males/females)	0.72	0.67
unemployment (%)	2.8	5.4
life expectancy at birth (both)	79.1	78.3
healthy life expectancy (HALE)	68.8	68.7
happiness score	6.92	6.12

Source: Own work based on: World Life Expectancy.com, 2020. (Available from https://www.worldlifeexpectancy.com/, Eurostat Database.)

When looking at risk factors or indicators closely related to them regardless of gender (Table 2), we can observe very similar HALE values in both populations. The Czech Republic shows a higher sex ratio in seniors over 65 years of age. Thus, significantly more women live to older ages in Poland than in the Czech Republic, and given that Polish women show lower values of risk factors for smoking and obesity and higher healthy life expectancy, these facts may lead to lower mortality due to dementia compared to the Czech Republic (see table 3). Figure 4 shows the structure of standardised mortality rates by age. Consistent with the highest prevalence rates being in the 85+ age group, this age group also has the highest mortality rates. The graph also shows a possible reduction in the differences in mortality rates by age between the two countries over the period under review.

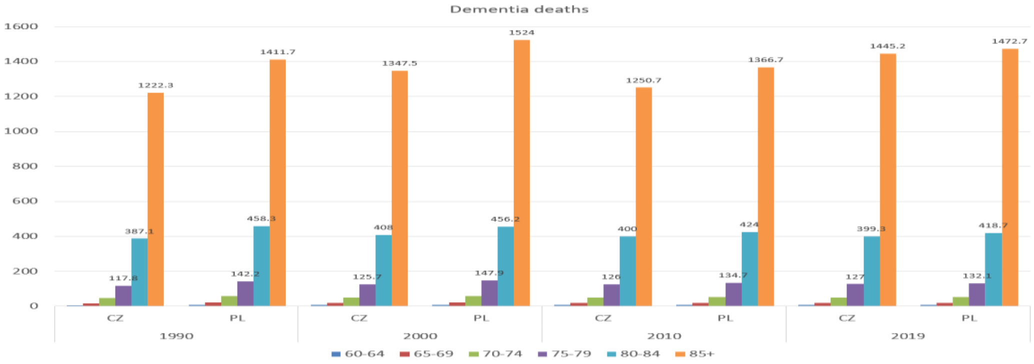

Figure 4: Dementia standardized mortality rate in the Czech Republic and Poland 1990 – 2019
Source: Own work based on: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. (Available from https://vizhub.healthdata.org/gbd-results/)

Dementia and Alzheimer's disease are the seventh leading cause of death in the Czech Republic (3 958 deaths in 2020) and 21st in Poland with 3 701 deaths that year. Table 3 shows age standardized mortality rate in 100 000 for both countries. With these values, both countries belong to the group of countries with lower mortality rates compared to most developed countries (USA, Canada, Scandinavian countries, UK, Australia), but also some countries of the Arabian Peninsula (Saudi Arabia, Oman) and, surprisingly, Africa (Ethiopia, Mozambique, Libya, etc.).

Table 3: Dementia´s and Alzheimer's disease age-standardized mortality rate in the Czech Republic and Poland 2020

Country	male	female	total
Czech Republic	14.06	13.36	13.71
Poland	3.48	3.81	3.73

Source: Own work based on: World Life Expectancy.com, 2020. (Available from https://www.worldlifeexpectancy.com/cause-of-death/alzheimers-dementia/by-country/)

4.2. Social assistance system for people with dementia and Alzheimer's disease in the Czech Republic and Poland

The social assistance system in the Czech Republic is implemented through social services and social care benefits. The social welfare system, as an optional social benefit and social services, was established in the 20th century. The general conditions were defined by law, but the legal entitlement was created only by the decision of the competent authorities of the city or municipality. Tomeš (2018) adds that this principle has been preserved until today. In Poland, care for people with dementia is provided by different structures subordinated to the Ministry of Health and the Ministry of Family, Labor and Social Policy. Care services are available, but dementia-specific services are lacking. In most European countries, the administration of social care or assistance systems is entrusted in varying degrees to autonomous regional public administrations, most often directly to municipal councils (e.g. Denmark), and is financed or co-financed by the central budget (e.g. Sweden, France). Similar principles apply to the system of social services in the Czech Republic, where the regional council decides on social services, i.e. what social services and in what numbers will be provided in the territory of the region with the support of public funds from the state budget, specifically the budget of the Ministry of Labour and Social Affairs of the Czech Republic, and regional and municipal budgets. The basic aspect of the system of social services provision is the so-called triad, which is represented by the commissioner who is responsible for the provision of social services in a given territory (regions, municipalities), the provider who provides social services, and the user to whom social services are provided (Zatloukal, 2008). Table 4 shows the social support systems for people with dementia.

Table 4: Comparison system help social in Poland and the Czech Republic

Social assistance system for people with dementia and illness	
Czech Republic	**Poland**
1. **Institutional assistance within social policy**	
Service caring	Social Welfare Homes - the fee of 70% is covered by the patient from their pension

Emergency care cases	Nursing and care facilities – 70% of costs cover patient
Specialized social guidance	Services outpatient care
Assist personal	Care within foundations and associations
Service center Daily	
Nursing homes	
Weekly service residential	
Care Daily	
2. Benefits socially directed For people with dementia	
Benefit protective	In justified cases, there is a possibility of partial or complete coverage costs for staying in the caring centres
The mobility allowance is intended for disabled people to compensate them for the costs of providing necessary transport.	In justified cases, there exists the possibility of coverage of part or whole costs of nursing care.
Special assistance allowance in the form of a motor vehicle	Card for a disabled person. In justified cases cases.
Card For Disabled Persons	

Source: own work

Social services in the Czech Republic, according to Act No. 108/2006 Coll., on Social Services, take the form of field, outpatient and residential services. In the case of assistance to people with dementia and Alzheimer's disease, field service workers visit the homes of their clients and provide advice, support and care to people in their home environment. Outpatient services are provided in a specific facility to which those interested in the service go or are transported, and residential services are linked to accommodation in social service facilities. Information on a specific service can be found in the National Register of Social Service Providers (Register of Social Service Providers, 2024). The specific conditions for payment for individual social services are set out in Decree No 505/2006 Coll, The Decree sets maximum prices for individual acts and services in connection with the provision of social services. The social services available to people with dementia or Alzheimer's disease in the Czech Republic are as follows:

- Care service - this is a field or outpatient service, focused on specific agreed actions, provided at predetermined times directly in the homes of persons and in social service facilities. The service includes assistance in managing all normal daily activities, such as assistance with personal hygiene and self-care, provision of meals or assistance in their preparation, assistance in ensuring the running of the household, and mediation of contact with the social environment. Service workers provide a level of support that preserves and develops the client's abilities to the maximum extent possible and tries to reduce dependence on someone else help (Pospíšil, 2015).
- Emergency care is an outreach service that takes place through remote communication between the client and the dispatch centre. It is for people who live independently but are at a high risk of permanent danger to health or life due to age, illness or disability.
- Specialist social counselling includes help with exercising rights, dealing with personal matters and social work. It is also provided in residential care homes where people with Alzheimer's disease and other types of dementia live (National Health Information Portal, 2024).

- Personal assistance - a field service provided to people in their homes without time limits, i.e. up to 24 hours a day.
- Respite service - this service can be outreach, outpatient or residential and allows family carers to take a break from the burden of caring or to take care of personal matters. The respite service temporarily takes over the care of the ill person and is provided for a limited period.
- The Day Services Centre is an outpatient service that includes help with all activities of daily living and offers clients a valuable way to spend the day, with activities offered in a setting adapted to their illness or disability. The aim is to individually support and develop as much as possible the self-sufficiency of these people so that they can live as long as possible in their home environment (Czech Alzheimer's Society, 2024).
- Weekly residential service - this residential service offers housing with all the necessary care, but the service operates on weekdays, i.e. from Monday morning to Friday afternoon. Clients of this residential care centre have the opportunity to spend weekends with their families and not lose contact with their environment and loved ones (Czech Alzheimer's Society, 2024).
- A care home is a residential service for people with Alzheimer's disease and other types of dementia whose situation requires constant care by someone else. The care in these homes is adapted to the specific needs of the clients and the staff is therefore trained accordingly (Horecký, Potůček, Cabrnoch & Kalvach, 2021).

The social benefits to which people with dementia and Alzheimer's disease in the Czech Republic are entitled to are the care allowance, the mobility allowance and the special assistance allowance. The non-monetary benefit is a disability card.

- The care allowance is intended to help cover the costs of necessary care and is intended for people who, because of their long-term adverse health condition, have a reduced or no ability to care for themselves and are dependent on the care of another person (Care Allowance, 2024). Depending on the level of dependency, it is provided in four tiers and from 1 July 2024 it will be increased in tiers 2, 3 and 4. A significant increase in the care allowance will be for persons in dependency category 4 with full dependency and care provided outside residential social services, the amount of the allowance will be 1087,24 EUR.
- The mobility allowance is intended for people with disabilities to compensate them for the cost of providing the necessary transport. The mobility allowance is intended for a person who holds a disabled person's card, repeatedly transports or is transported and is for payment in a calendar month and does not use residential social services.
- The special assistance allowance in the form of a motor vehicle (new or second-hand) is only available to a disabled person who has to prove that he/she is transported repeatedly in a calendar month and that he/she can be transported by the vehicle. This allowance can be claimed once every 7 years and is an income-tested benefit, i.e. not everyone will qualify for the maximum allowance.
- The Disabled Person's Pass is a non-monetary benefit designed for people with a disability that includes a mobility impairment, orientation impairment or also an autistic spectrum disorder (Ministry of Labour and Social Affairs, 2023). According to Act No. 329/2011 Coll., on the provision of benefits to persons with disabilities and

on amendments to related acts, as amended, a person with a disability who is older than one year and has a physical, sensory or mental disability or an autism spectrum disorder, where such disability harms his/her mobility and/or orientation, is entitled to a disability card. The conditions of entitlement also vary according to the type of licence, of which there are three in total (Labour Office, 2024).

In Poland, care for people with dementia is provided by different structures subordinated to the Ministry of Health and the Ministry of Family, Labor and Social Policy. Care services are available, but dementia-specific services are lacking. Care for patients with dementia most often takes place in family homes, where the care of a patient with dementia rests mainly with caregivers coming from the family or employeed by the family. In Poland, there is no legal status as a guardian of a person suffering from dementia. There is no formal support system for family caregivers. No legal regulations enable a caregiver to reconcile work with care and receive benefits or pension supplements. In turn, as part of institutional care, assistance is provided in facilities (public or private) of a stationary or temporary nature through (Durda, 2010):- Social welfare homes (DPS) (Journal of Laws of 2005, No. 217, pos. 1837; OJ of 2004, No. 64, item 593), provide living, care, educational and support services at the level of the applicable standard, to the extent and in forms resulting from the individual needs of the people staying there. These homes may also provide care and specialist care services to the people living there. Residents are provided with health services such as nursing, care and care for the disabled, treatment, medical examinations and advice, medical rehabilitation, psychological examination and therapy, preventive measures and health promotion. The stay in DPS is paid: 70% of the costs are covered by the patient from his/her pension or disability pension. The remaining part is covered by the family or the commune[20].

- Nursing and medical care facilities (Journal of Laws of 1991, No. 91, item 408; Journal of Laws of 1998, No. 166, item 1265). The care and treatment facility provides 24-hour health care services, which include care and rehabilitation of people who do not require hospitalization, and providing them with pharmaceuticals and medical materials, room and food appropriate to their health condition, as well as care during organized cultural and recreational activities. The referral is issued by the general practitioner or the patient's doctor in a hospital. The patient covers the costs of stay - 70% of the pension or disability pension, no more than 250% of the lowest benefit. The remaining amount is covered by the National Health Fund. The nursing and care facility provides 24-hour health care services, which include care and rehabilitation for people who do not require hospitalization, and provides them with the continuation of pharmacological treatment, room and food appropriate to their health condition, and also provides health education for these people and their family members. The payment is determined on the basis of submitted certificates confirming the amount of income of a given person, and his/her family or legal representative is obliged to pay for the stay (usually 70% of the pension to which he/she is entitled). Occasionally, it is possible to partially or fully cover the fee for the stay at the facility at the request

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[20] Caring for a patient with Alzheimer's disease. A guide for the caregiver. https://www.nfz.gov.pl/gfx/nfz/userfiles/_public/dla_pacjenta/fop/opieka_nad_chorym_na_alzheimera.pdf

of the person being referred or the family, after determining the financial situation of the person.

Taking into account temporary care, the following stand out (Durda 2010; Semków, 2021):

- Outpatient care service is most often performed with the participation of a trained nurse or caregiver. Their help consists primarily of daily care and the dressing of wounds. There are care agencies in Poland that cooperate with social welfare centres that employ caregivers. When it becomes necessary to organize care at home, you should contact a social worker at a social welfare centre. Depending on the severity of the disease, the patient can also count on the help of a primary care nurse and a long-term home care nurse. In this case, nursing care is financed by the National Health Fund. The doctor decides on the allocation of nursing care.

Care is also possible within associations and foundations whose objectives are: popularization and dissemination of knowledge about dementia, especially Alzheimer's disease; organization of various forms of assistance for patients and their families; exchange of information and education of people caring for the sick; cooperation with national centres and foreign countries to exchange experiences; create support groups (self-help for caregivers), as well as undertake and support activities to develop diagnostics and methods of treating dementia syndromes (especially Alzheimer's disease) and activities to develop scientific research. Therefore, it is extremely important to disseminate knowledge about the availability of services for people struggling with dementia and their caregivers. Based on the available literature on the subject and existing data, an attempt was made to present a knowledge map (fig. 5) based on four key points: diagnostics, communication, information, and selection of the appropriate form of help.

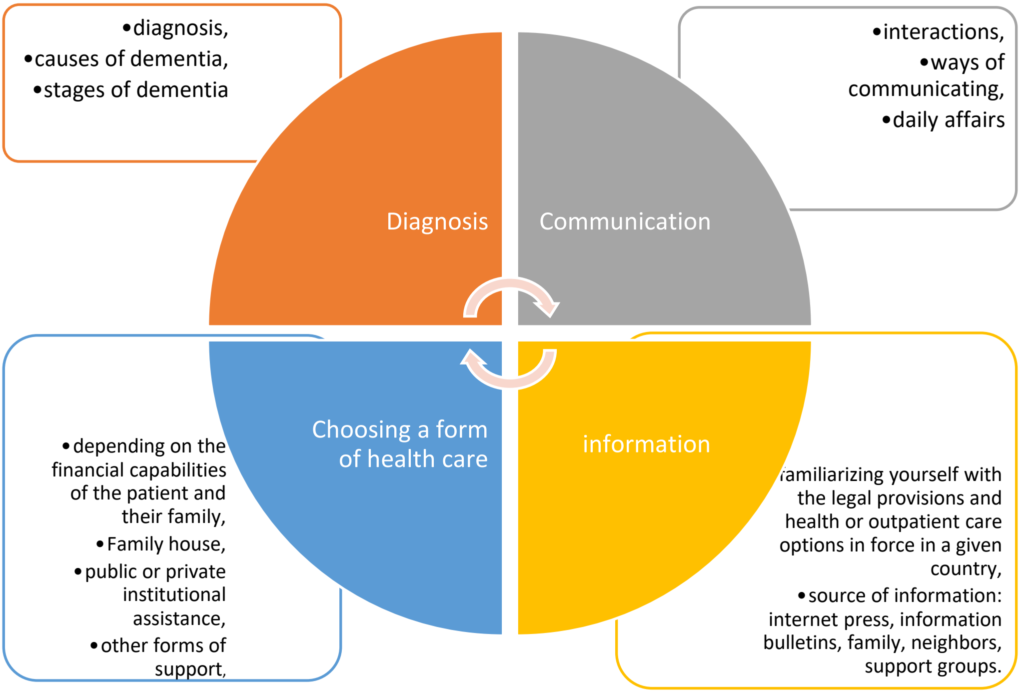

Figure 5: An attempt to develop a knowledge map addressed to caregivers of people with dementia. Source: own work

5. Discussion

Based on a review of the literature and analysis of statistical data, social assistance systems in Poland and the Czech Republic were assessed and the following detailed conclusions were formulated.

- In a selected group of countries, the availability of care services for people with dementia is still insufficient, especially in Poland, where the care of the sick rests mainly with the family,
- In the Czech Republic, a more efficient social welfare system is becoming visible, which relieves the burden on family caregivers.
- The deepening ageing process of the population observed in recent years may lead to an escalation of the problem of caring for dementia patients.
- Knowledge management can help support the social care system for people struggling with dementia.

In the Czech Republic, dementia care is constantly evolving to better respond to the growing number of cases and the needs of patients. The main trends include: Dementia awareness and education (of the public and health and social care professionals), early diagnosis and intervention, support for carers, development of specialist services, technological innovation, community support and integration.

At the moment, especially in Poland, an extremely important problem is the financial burden on the family of a person with dementia. The scale of expenses for a patient who requires 24-hour care usually exceeds the financial capabilities of a small family. To reduce the existing structural inequalities in care between and within European countries, and to establish quality-related minimum standards in the care of people with dementia, transnational concepts are needed. The EU, in cooperation with care planners, research institutions, care providers, and patient organisations, should develop European care guidelines or dementia plans that contain concrete measures, schedules, and budgets. In the face of ageing societies, it becomes a challenge to provide decent care to the growing number of elderly people suffering from Alzheimer's disease or other dementia diseases. In the absence of systemic solutions, the only chance to provide decent care for Alzheimer's disease is to implement local strategies aimed at strengthening the care potential of families of people living with this disease. At this point, it is worth citing research conducted by Alzheimer Europe, from which a certain ranking emerged regarding the effectiveness of implementing strategies (Alzheimer plans) related to the quality of support for people affected by dementia. According to the report, the most effective and best care is in Finland, Great Britain, Denmark, Sweden, Belgium and Germany [21]. It is worth emphasizing that changes in the demographic structure in many European countries, and in recent decades also in Poland and the Czech Republic, encourage reflection, but also the need to undertake specific work on the organization of various, complementary forms of care for people with dementia. For many years, the literature on care has drawn attention to the need for two-way actions - both strengthening the appropriate services providing various types of services for people affected by dementia, and actions supporting their families in providing care. However, the presented work does not exhaust the subject, but is an introduction to further research on understanding the challenges faced by people with dementia in real care conditions.

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[21] See: https://www.alzheimer-europe.org

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