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Health-related quality of life in older adults

Jakość życia zależna od zdrowia w grupie ludzi starszych

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Abstract

The presented article aims to show, based on the source literature, the most important health-related quality of life challenges in older adults. The main determinants of health, i.e. physical, mental, and social well-being, have been characterized. The results presented are in some cases contradictory, most notably regarding the influence of sociodemographic factors, mainly gender and age, on the perception of health. Given the growing problem of quality of life for seniors in an aging society, there is an urgent need for research addressing physical, mental, and social well-being separately. It is crucial to precisely define and probably expand the number of forms that vary in constructing the perception of a given well-being, which today is most often limited to the existence of medical conditions, physical activity, and diet. Studies should aim to identify the dynamics and modalities of how one form of well-being interacts with others. (Gerontol Pol 2024; 32; 260-266) doi: 10.53139/GP.20243230

Keywords: *health-related quality of life, older adults, physical health, mental health, social health*

Streszczenie

Celem prezentowanego artykułu jest przedstawienie, na podstawie literatury przedmiotu, najważniejszych problemów jakości życia ludzi starszych związanych ze zdrowiem. Scharakteryzowano główne determinanty zdrowia tj. dobrostan fizyczny, psychiczny i społeczny. Prezentowane wyniki są niekiedy sprzeczne, przede wszystkim co do wpływu czynników socjodemograficznych, głównie płci i wieku, na postrzeganie zdrowia. Ze względu na narastający problem jakości życia seniorów w starzejącym się społeczeństwie istnieje pilna potrzeba badań odnoszących się odrębnie do dobrostanu fizycznego, psychicznego i społecznego. Niezbędne jest precyzyjne określenie i zapewne rozszerzenie liczby form, które w zróżnicowany sposób budują postrzeganie danego dobrostanu, a dziś najczęściej ograniczają się do istnienia stanów chorobowych, aktywności fizycznej, diety. Badania powinny zmierzać do określenia dynamiki i sposobu oddziaływań jednej formy dobrostanu na inne. (Gerontol Pol 2024; 32; 260-266) doi: 10.53139/GP.20243230

Słowa kluczowe: *jakość życia zależna od zdrowia, starsze osoby, zdrowie fizyczne, zdrowie psychiczne, zdrowie społeczne*

Introduction

The aging of the population and the extension of life have many underlying determinants. It is associated with decreasing birth rates, increasing well-being, and human quality of life. Prosperity is linked to easier access to health care, increased social security coverage, better living conditions, the generalized dissemination of knowledge to improve the quality of life, and national and international organizations' efforts to support and socially engage older people. Specific problems related to aging societies are found practically all over the world. Older adults are over 60 according to the WHO (65 according to the UN). In Poland, according to the GUS demographic projection prepared in 2014, in 2035 older people will account for approximately 30% of the population, while in 2050 they will constitute – 40%. The issue of quality of life, including its health-related determinants, is of importance for geriatric policy, which in turn can have a significant impact on the well-being of the population itself, as well as on health care costs and the economy as a whole.

Perceived quality of life was likely for the first time introduced by Harvey Schipper in 1990 [1]. Now, quality of life is defined according to WHO as the perception of individuals and their position in life in terms of the culture and value system relevant to them, about goals, expectations, concerns, and norms of behavior. Accordingly, areas of quality of life include physical well-being, mental well-being, social well-being, independence, environment (surroundings, including financial security and home environment), religious beliefs, and others.

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Quality of life is difficult to define, as it is determined by several factors, such as living conditions, social needs, cultural needs, and the economic situation.

The concept of quality of life in medical science has a specific meaning. Health-related quality of life (HRQOL) refers to the physical and psychosocial dimensions. It encompasses a wide range of human experiences, including functioning and subjective responses to illness. Contemporary interpretations of HRQOL are based on the World Health Organisation's definition of health as complete physical, mental, and social well-being, not just the absence of disease [2]. Among the factors affecting a person's health, the WHO puts lifestyle at the top of the list, at 50%, which consists of a balanced diet, proper rest, physical activity, and optimization of stress. Genetic and environmental factors have less influence (20% each) and only 10% depend on health care. The WHO states three basic areas of health-based quality of life: the main dimensions of the quality of life were the tools used in the study to assess the HRQoL: the physical component summary (PCS), mental component summary (MCS) and index of life quality (ILQ).

The research on overall HRQoL is frequent and made on great groups of older adults. In Polish studies [3] the factors determining the HRQoL included gender, habitation place, education level, employment status, smoking habit, and physical activity. The men, older adults with higher education, subjects <75 of age, and people smoking after 80 years, demonstrated higher HRQoL. In similar investigations in China [4], better HRQoL was positively related to higher BMI, no drinking, moderate activities, living together with family, good sleeping, good social and family chains, less taking drugs, an absence of hearing or visual impairment, and fewer chronic conditions. Anxiety/depression was negligible, and problematic mobility was often reported. Again, like in Poland, women had lower perceived HRQoL than men.

This review paper aims to show the state-of-the--art research focused on health-related quality of life among elderly people in different countries. Following the WHO recommendations, this issue is considered in three domains such as physical, mental, and social well--being. The choice strategy for searching and selecting the appropriate references included an application of two databases, Elsevier Scientific Direct and PubMed. The search was performed for two simultaneous keywords: health-related quality of life, and elderly. The screened period included years from 2015 to 2024. Only review papers and research papers were considered. The ranking was prepared for each database by relevance of a paper. The whole number of publications found based on the above selection criteria was almost 60,000 for the first and over 6,200 publications for the second databases. Among them, only 100 publications were drawn from each database and then only thirty were selected based upon a personal decision of the author of this review. The remaining 10 papers (a limit value of cited publications in this journal is for review papers with only 40 references) were collected based on the contents of the Polish journals. Besides, in this number are also some fundamental papers.

Perceptions of physical well-being among older adults

Existing medical conditions

The perception of the physical well-being of life in the elderly group focuses on the assessment of health and the appearance and severity of illness. According to [5], among the elderly, it appears overweight and obesity (64% on average), hypercholesterolemia (56%), hypertension (46%), and diabetes (11%). According to a GUS report on quality of life in 2015 in Poland, only 20% of seniors considered their physical health as at least good, half described it as acceptable, and the rest felt themselves as being in poor or very poor physical condition.

There is a great number of investigations performed on the elderly suffering from several serious illnesses and accidents. As concerns cancer, in Norway among the elderly women suffering from ovarian cancer, the appearance of frailty and the lack of independence heavily reduced HRQoL [6]. Moreover, role functioning and insomnia were the most negatively affected the HRQoL score. In the USA, older adults with acute myeloid leukemia showed physical and cognitive improvement in three months after successful chemotherapy [7], for people with upper tract urothelial carcinoma, a significant decrease in mental health was observed after 1st year of diagnosis [8], and geriatric impairments and frailty were often present among older adults with prostate cancer negatively influencing HRQoL [9]. Also in the USA, the intake of different drugs, in particular corticosteroid hormones, opioids, benzodiazepines, and medicaments against bronchial asthma greatly declined HRQoL among older adults with prostate cancer [10]. In China, among elderly patients undergoing esophageal cancer surgery, the patients feeling weak before surgery demonstrated a significant reduction in HRQoL [11]. The patients, who were frail before the surgery, demonstrated a significant decline in HRQoL, a slower recovery, and an increased burden symptom during recovery. The comprehensive geriatric assessment improved HRQoL in older adults suffering from cancer as compared to standard care [12].

Considering coronary malfunctions and their consequences, often studied in Poland, heart failure changed significantly the HRQoL of patients in physical, cognitive, emotional, and socio-professional aspects [13]. The patients suffering from chronic heart failure who demonstrated a lower level of acceptance of this disease had a much lower HRQoL [14]. Similar observations were reported from Pakistan where low HRQoL among older patients with cardiovascular or heart diseases was typical [15].

For diabetes, there was a negative correlation between the HRQoL and the intensity of diabetes symptoms in Turkey [16]. The gender, education, living alone, and using oral antidiabetic drugs affected the HRQoL. The research made in Iran among diabetics demonstrated they HRQoL is affected mainly by the presence of diabetes, obesity, and hypertension, particularly in women [17]. Therefore, the professional support aimed to compensate for the negative effect of chronic illness on HRQoL should be especially directed toward older obese diabetic women.

Regarding muscle diseases, in Korean studies among elderly people with sarcopenia, worsening HRQoL appeared [18]. Sarcopenia was significantly associated with difficulties in daily activities and for female subjects, sarcopenia was inversely associated with mobility problems.

The important feature among the elderly is the oral HRQoL. In Italy, a strict correlation between frailty, the typical condition of aging people, and a weak OHRQoL was disclosed for old people with poor oral health quality [19]. Frailty related to poor oral health is very common among older adults and it is affected by malnutrition and bad lifestyle habits. It is suggested then as mandatory to implement oral health to improve the OHRQoL in the elderly. Poor oral hygiene is a marker for poor HRQoL also in Finland [20]. The oral hygiene of older individuals in long-term care is insufficient. Institutionalized older adults are afraid of oral inflammatory diseases and a necessity for dental care. Therefore, it is postulated that such residents should have oral care education of caregivers and regular dental check-ups. In Romania, a worse OHRQoL was also observed in elderly using bimaxillary complete dentures, and those having periodontal disease. The education level and residence place also affected the HRQoL. However, there was no influence on OHRQoL of the age and total number of edentulous spaces. It is unexpected that despite the poor oral health and prosthetic status of the elderly near Bucharest, the impact on their well-being has been moderate [21]. In Taiwan, again the oral health-related quality of life was negatively related to mental depression for older adults [22]. The effects of different factors such as age, gender, marital status, living status, residency status, religion, level of physical activity, and concerns of family gradually increased mental depression related to the oral health-related quality of life.

In China, tooth loss declined the HRQoL with socio-economic status as an important determinant suggesting that improvements in the social and economic environments should be implemented to prevent tooth loss and improve the OHRQoL [23].

The effect of injuries was studied in Korea, where HRQoL of such older women declined after injury [24], in particular in the appearance of unemployment, the lack of physical activity, underweight or overweight, stress, osteoarthritis, and weak perceived health status. For elderly women who had falls, factors such as younger age, habitation in a city, high education level, and physical activity were associated with a better-rated HRQoL, and obesity and diabetics make their value lower [25]. For the elderly with knee osteoarthritis, the depressive symptoms and poor quality of sleep negatively influenced the HRQol [26].

Diet

An important determinant of physical well-being and therefore health and quality of life is diet. Such studies in Poland are seldom carried out in Poland at present. Recently, it was shown that even 90% of older adults applied various food restrictions, excluding from their diets meat (38%), fish (13%), raw vegetables (15%), and dairy products (33%) [27]. In this group, the positive attitudes of over 50% were noticed only for the healthy foods [28]. According to [29], three dietary patterns were identified in the Polish elderly: traditional, prudent, and adverse, certainly affecting the diet, and adherence to these dietary patterns was related to the socioeconomic status and living environment. According to [5], among the elderly, a low-fat and low-cholesterol diet was reported by only 8% and a low-calorie diet by 1% of the respondents, and excessive adding salt to already seasoned dishes, consumption of meat products with visible fat, often a shortage of vitamins A, C, E, B1, B2, B6, and B12, protein, dietary cholesterol, folate and minerals such as Mg, Ca and K. magnesium, calcium and potassium in 5–36% of them. On the other hand, absorption of the Mediterranean diet positively influenced HRQoL [30].

Physical activity

The majority of adult Poles spend their leisure time passively or do activities that do not require physical

exertion, and this applies mainly to older people, according to GUS Social Prognosis in 2014. However, according to another GUS report on the quality of life of people over 65 years of age, only 9% of respondents do sport (running, cycling) at least once a week, and 55% go for walks at least once a week or more often. A comparison of the leisure activities of U3A students and older adults not displaying this type of activity found that as many as 84.3% of seniors in the first group spent time actively, while 60.8% in the second group did so [31]. The study showed a significant statistical relationship between age, economic situation, education level and body weight of respondents, and active leisure time. Another survey showed that active lifestyle was influenced by the gender, education level, and economic situation of the respondents [32]. Leisure time was spent actively mainly by older individuals aged 50-75 years, assessing their material situation as very good, with normative body weight and overweight. In another study, data on the assessment of physical activity showed that even with health and musculoskeletal problems, senior citizens were keen to undertake and practice various forms of activity [27]. The most common forms of physical activity undertaken by the study group were walking for at least 20 minutes, Nordic walking, and aerobic exercise. Yoga and swimming pool classes are also quite popular. Sports and cycling were the activity types that contributed most to the increase in HRQoL among the elderly in the Netherlands [33]. Practicing different sports by older adults is associated in Spain with a higher level of self-perceived strength, and then with a higher HRQoL, both physical and mental components [30].

Perceptions of mental well-being among older adults

Mental activity

The increase in human life expectancy and the leisure of retirement make it possible to devote time to participating in organized groups providing various forms of education and activity. Education enables independent living in old age, enhances self-esteem, and facilitates the acquisition of new skills and knowledge that seniors can use to increase their income. Mental activity (including education) and physical activity are important factors affecting the quality of life of seniors, with mental activity being more common than physical activity [34].

Mental health conditions, along with education, financial independence, and self-reliance were significant determinants of quality of life in India [35]. As reported in Taiwan, excessive daytime sleepiness was associated with a poor mental component summary [36].

Perceptions of social well-being among older adults

Family relationships

The national survey found that among seniors, there was a common identification of health and material situation as the main determinants of quality of life, with older individuals striving to be self-sufficient. Respondents indicated that relationships with family and friends were important but also different, treating them more often as complementary to each other rather than as substitutes [37]. Respondents most often needed help with cleaning and day-to-day tasks, and support was usually provided by family, less often by carers and friends.

Social ties

The social context is also an important component of quality of life for the older demographic, and good relationships with others influence health and life expectancy. The predominant factor driving seniors to participate in this form is the desire to engage in physical and cultural activity, but also the underlying need to have social and community ties. The social environment understood as family, friends, and acquaintances or a group of people of similar age, is an important determinant of quality of life [34].

Life satisfaction

An important determinant is the balance of life achievements/losses and the multidimensional support of the individual at different stages of the life path. Life satisfaction is derived from several factors. A study of seniors found that it was common to identify health status and material situation as the main determinants of quality of life [37]. A study by the Central Statistical Office (GUS) on quality of life shows that 66% of respondents aged 65 and over feel that they have friends (other than family), but as many as 71% said they hardly ever meet them. 26% of respondents considered that older adults are a discriminated group in Poland. However, half of the surveyed are optimistic about the future and 56% feel that their life has meaning. Also, 38% described their well-being as good or very good.

In Slovakia [38], community participation and social activity were found significant for HRQoL. In China, the housing area, housing material type, utilization of

sanitary toilets, separation of housing and kitchen were separated and non-solid fuels used as cooking fuel were significantly associated with high HRQoL [39]. In Korea, going out less compared to the past and remaining alone were frequently observed as a factor in declining HRQoL [40].

Correlations between different determinants and domains

When considering the three well-being determinants found in the classic definition of health-based quality of life, it is worth noting that they are only a framework and can be taken as a starting point. This is because there is an interdependence of the components of this model, i.e. the domains, as well as, in some cases, the interrelatedness of the determinants. This is true for any group, but in the case of seniors, these relationships seem particularly strong.

There is a clear need to distinguish domains (areas) from their components (sub-areas), and finally, the determinants affecting the importance of the component domains, which are often interpreted differently. Such research is not popular in the recent literature. In the Polish studies [34], health, nutrition, mental and physical activity, education, and social context were identified as determinants of considerable importance in assessing the quality of life of older adults. The determinants of quality of life assessment were underreported in terms of gender, low variation in age, or place of residence, but only in studies of the general population; their importance in seniors is certainly different, although no such studies are available. In the group of U3A students [32] pro-health attitudes were most influenced by environmental factors such as gender, educational level, and material situation. Physical and mental health (well-being) is the most important factor in the shaping of quality of life. Medical conditions, especially chronic ones, affect not only mental well-being but also social well-being by causing a decrease in interpersonal relationships. In turn, the disappearance of social and family ties gives rise to feelings of alienation, lack of meaning in life, withdrawal from society, and, consequently, deep depression. Declining physical activity leads to increased morbidity, which in turn worsens the perceived quality of life. Becoming more active is first and foremost a matter of choice for the senior citizens themselves, but there is also pressure from friends and family, the entire environment. Worse psychological well-being or a lesser role for the environment can therefore lead to the development of conditions conducive to illness, thereby creating a vicious circle. Similarly, nutrition affects physical health and quality of life. A higher standard of education often leads to greater social activity and a sense of being a member of the community. Another survey [31] showed a small number of statistically significant correlations between older people's attitudes and the determinants studied. Gender appears to be a crucial determinant of dietary attitudes compared to all other dietary factors. Reasons for this may vary: different importance of quality of life, different experiences, different roles of men and women in society.

The most positive attitude is expressed about health benefits. This behavior is fully justified by a sample of older adults suffering from various medical conditions.

Summary

The presented review of studies on the quality of life of seniors in Poland showed that there is little research, often focused on a specific aspect of life, such as diet or physical activity. The results are linked to different aspects of the perception of individual elements of quality of life and health, rarely distinguishing between their physical, psychological, and social nature. The examined aspects relate to various forms of health-related well-being, but analyses of seniors' attitudes towards health as well as various elements of perceptions of different forms of well-being do occur in surveys. The results presented are sometimes contradictory, especially regarding the influence of sociodemographic factors on health perceptions, mainly gender and age.

Due to the growing problem of quality of life for seniors in an aging society, there is an urgent need for research into the perception of one's health, relating separately to physical, mental, and social well-being. It is necessary to precisely define and probably expand the number of forms that differentially shape the perception of a given well-being, which today is most often limited to the existence of medical conditions, physical activity, and diet.

Most significantly perhaps, research should aim to identify the dynamics and impacts of particular types of one form of well-being on others. For instance, a deterioration in health will probably affect physical activity and diet, but also mental state and relationships with family and wider community. The onset of depression and dementia is also bound to result in changes in activity, as well as deterioration in relationships with the environment. Finally, it is also worth analyzing how the deterioration of social well-being will affect both physical and mental health. Such research is planned for the near future and is expected to result in a comprehensive analysis of seniors' attitudes towards various forms of

well-being, their dependence on multiple determinants, their modes of expression, and, finally, their dynamics, interactions, and validity.

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Konflikt interesów / Conflict of interest
Brak/None

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