DOI: https://doi.org/10.21784/IwP.2024.009

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# Quality of life and multimorbidity in elderly people

#### Jakość życia i wielochorobowość osób starszych

#### Abstract

**Introduction.** Health-related quality of life (HRQoL) is part of the general concept (QoL) and represents the overall impact of the disease and its treatment on the person/family. Multimorbidity is a condition that refers to the presence of two or more chronic diseases accompanying an individual's life. In the older population, it is quite common, due to age-related physiological changes and increased susceptibility to chronic diseases. Their growth to an epidemic state increases their negative impact on the socio-economic development of societies and worsens the nation's health indicators.

**Aim.** The present study aims to establish the quality of life of people with chronic diseases, offering guidelines for its enhancement, as well as limiting the main risk factors that affect it.

**Material and methods.** A survey of patients with chronic diseases was conducted. Covers 100 patients on a random basis, randomized only by age (over 55 years old), in GP practices, "Vrabnitsa" district - Sofia, carried out in the period February - April 2024.

**Results.** Diabetes mellitus, hypertensive heart disease, chronic obstructive pulmonary disease, gastroesophageal disease remain at the top of the list of the most common chronic diseases, and each of them has its burden on the patient's quality of life, through social isolation, deformity or disability.

**Conclusions.** 1. The limitation of risk factors will lead to a drastic reduction in the spread of diseases and complications that lower the quality of life. 2. Multimorbidity in the elderly has a significant impact on their quality of life. 3. Good collaboration between patients, their doctors, nurses and relatives is an important part of the actions to increase the quality of life of these patients.

Keywords: Elderly, multimorbidity, quality of life

#### Streszczenie

**Wstęp.** Jakość życia związana ze stanem zdrowia (HRQoL) stanowi część ogólnej koncepcji (QoL) i reprezentuje ogólny wpływ choroby i jej leczenia na osobę/rodzinę. Wielochorobowość to stan, który odnosi się do obecności dwóch lub więcej chorób przewlekłych towarzyszących życiu jednostki. W populacji osób starszych występuje dość często, ze względu na związane z wiekiem zmiany fizjologiczne i zwiększoną podatność na choroby przewlekłe. Ich osiągnięcie stanu epidemicznego zwiększa ich negatywny wpływ na rozwój społeczno-gospodarczy społeczeństw i pogarsza wskaźniki zdrowia narodu.

**Cel.** Celem niniejszego badania jest określenie jakości życia osób chorych przewlekle, zaproponowanie wskazówek dotyczących jej poprawy, a także ograniczenia głównych czynników ryzyka, które na nią wpływają.

**Materiał i metody.** Przeprowadzono badanie wśród pacjentów cierpiących na choroby przewlekłe. Obejmuje 100 pacjentów losowo, randomizowanych jedynie według wieku (powyżej 55 lat), w przychodniach lekarskich rejonu "Wrabnitsa" – Sofia, badanie przeprowadzono w okresie luty – kwiecień 2024 r.

**Wyniki.** Cukrzyca, nadciśnieniowa choroba serca, przewlekła obturacyjna choroba płuc, choroba żołądkowo-przełykowa pozostają w czołówce listy najczęstszych chorób przewlekłych, a każda z nich wywiera swoje obciążenie na jakość życia pacjenta poprzez izolację społeczną, deformację czy niepełnosprawność.

**Wnioski.** 1. Ograniczenie czynników ryzyka doprowadzi do drastycznego ograniczenia rozprzestrzeniania się chorób i powikłań obniżających jakość życia. 2. Wielochorobowość osób starszych ma istotny wpływ na jakość ich życia. 3. Dobra współpraca pomiędzy pacjentami, ich lekarzami, pielęgniarkami i bliskimi jest ważnym elementem działań na rzecz poprawy jakości życia tych pacjentów.

Słowa kluczowe: Osoby starsze, wielochorobowość, jakość życia

#### Introduction

The concept quality of life - health-related quality of life (QoL-HRQoL) is based on the WHO definition of health, which is perfect physical, mental, and social well-being, not just the absence of disease. Quality of life (QoL) refers to "an individual's perception of their position in life, in the context of the cultural and value systems in which they live and in relation to their goals, expectations, standards, and concerns" (WHO). Health-related quality of life (HRQoL) is part of the overall concept QoL and represents the overall impact of the disease and the related medical treatment on the life of the person and their family. HRQoL is related to several aspects directly influenced by the individual's health status and healthcare. Health and well-being are interactive and multidimensional concepts, both affected by the functioning of the healthcare system. Recently, the comprehensive assessment of the success rates of a therapeutic intervention, which provides data on the impact on health status and HRQoL has become leading [1,2].

Multimorbidity is a condition that refers to the presence of two or more chronic diseases coexisting in an individual. Multimorbidity in the older population is quite common due to age-related physiological changes and increased susceptibility to chronic diseases, which can significantly affect their quality of life [3]. Chronic non-transmittable diseases are caused by common and preventable risk factors, such as smoking, unhealthy diet, low physical activity, and alcohol abuse. Their growth to an epidemic state increases their negative impact on the socio-economic development of society and worsens the health indicators of the nation [4]. The healthcare system in the Republic of Bulgaria spends significant resources on their diagnosis, prevention, prophylaxis, and treatment to respond effectively and equitably to the health needs of the population. Patients need to receive sufficient and accessible information from the medical teams that provide primary outpatient care—general practitioner (GP) and nurse about all risks and undesirable complications of their diseases, opportunities for prevention, education, and self-training to manage their health problem [5,6].

### **Research Aim**

The present study aims to establish the quality of life of people with chronic diseases, to offer guidelines for its improvement, and to limit the main risk factors affecting it.

## Material and methods

Documentary, sociological, and statistical methods were used to achieve the outlined aims. A survey was conducted using a specially developed questionnaire aimed at patients with chronic diseases who expressed willingness and consent to participate. The scope of our study includes 100 patients, selected completely randomly, randomized solely by age (over 50 years), in the practices of GPs in the "Vrabnitsa" district of Sofia. The study was conducted in the period from February to April 2024 in Sofia.

### **Results and Discussion**

Of all the 100 surveyed respondents, 90 people stated that they have chronic diseases (fig. 1).



Figure.1. Number of patients with chronic diseases

Gender distribution shows that chronic diseases are more prevalent among males, with 60 men and 30 women among the 90 surveyed individuals with chronic illness. The age structure of the surveyed patients shows a predominance of those over 70 years old (37%), followed by those aged 65-70 years (33%), and nearly equal proportions of those aged 55-60 years (8%) and 60-65 years (12%) (fig. 2).



Figure 2. Distribution by age

Of the total number of patients with chronic diseases (90 surveyed), 36% stated that they suffer from only one disease, with 20% of them having only hypertension and 16% suffering from diabetes. 45% indicated that they have two chronic diseases, with the most common combination being hypertension and diabetes, while 9% shared that they have more than two chronic diseases (fig. 3).



#### Figure 3. Number of chronic diseases

The most common chronic diseases are: 45% for hypertensive heart disease (HHD), 25% for diabetes mellitus (DM), 18% for ischemic heart disease (IHD), 8% for gastritis, ulcer, gastroesophageal disease (GERD), and 4% for COPD (fig. 4).



#### Figure 4. Frequency of chronic diseases

The analysis of the data on the distribution of risk factors shows that 39% of the patients are smokers and 28% consume alcohol. An almost equal relative share of respondents are exposed to both risk factors (12%), namely, being overweight (11%), and those with a lack of physical activity (10%) (fig. 5).



Figure 5. Distribution of risk factors

The survey reveals that the quality of life of patients who reported suffering from at least one chronic disease was significantly better before the onset of the disease compared to after its development. Among the respondents, 22% stated that their quality of life before the disease was very low, while 33%, reported a very low quality of life after the disease, attributing this mainly to the difficult control of the disease and lack of quality assistance. 27% of the patients had a low quality of life before the disease, with the frequency of those with low quality of life rising to 37% after the disease.

Before the disease, 20% of the patients had a medium quality of life, which dropped to 11% after the disease's progression. There is also a significant difference in the groups of people with high and very high quality of life before and after the disease. Specifically, 21% reported a high level of quality of life before the disease, while only 10% maintained a high quality of life after the disease. Those with a very high quality of life dropped from 10% before the disease to 9% after it.

The main reasons patients cited for the deterioration in their quality of life after the development of the disease include inadequate control of the disease, failure to abandon risk factors, lack of support from medical staff, and the high cost of medications (fig. 6).



Figure 6. Quality of life before and after the disease

Guidelines for Improving the Quality of Life for Elderly People with Multimorbidity

- Limiting Risk Factors: Smoking, alcohol consumption, physical inactivity, caffeine intake, high sugar consumption, low health literacy, etc [7,8].
- Proactive Care Management: A holistic approach involving comprehensive coordination of care by health professionals: regular monitoring, reduction of polypharmacy, optimization of medications prescription and intake, and optimization of treatment plans based on individual patient needs.
- Personalized Interventions: Tailoring therapeutic interventions based on each patient's preferences, circumstances, functional capacity, and health priorities. Adopting a person-centered approach helps align medical treatment with patients' values, priorities, and goals.
- Social Support: Promoting social engagement through community programs, support groups, family involvement, and fostering connections. Enhancing social support networks reduces loneliness and isolation, allowing for better mental well-being [9,10].
- Improving the Qualification of Medical Professionals.
- Cheaper and More Accessible Medications.
- Support from GPs and Patient's Relatives.
- Patient Discipline and Personal Responsibility for Their Disease.
- Encouraging Self-Management: Providing education on disease management and self-care strategies. Promoting healthy lifestyle changes.

### Conclusions

- 1. Chronic non-communicable diseases remain a long-standing and unresolved issue that requires increasing attention to reduce their drastic impact on people's quality of life.
- 2. Limiting risk factors leads to a significant reduction in the prevalence of the diseases themselves, as well as the occurrence of complications that lower the quality of life.
- 3. Hypertensive heart disease, diabetes mellitus, gout, ischemic heart disease, chronic obstructive pulmonary disease, gastroesophageal disease, and rheumatoid arthritis remain among the most common chronic diseases, each significantly impacting patients' quality of life through social isolation, deformity, or leading to disability.
- 4. Multimorbidity in the elderly significantly impacts their quality of life, which is much lower after the development of the disease compared to before its onset. It is determined by the patient's ability to self-care, perform normal physiological needs, adapt to the changed lifestyle, strictly follow prescribed medications, and adhere to dietary and hygiene norms.

- 5. The patient should be encouraged towards independence in managing their disease. The presence of a health problem should not allow them to limit their active life, contact with people, and the outside world.
- 6. Good collaboration between patients, their doctors, nurses, and relatives is a very important part of actions to improve these patients' quality of life.

### **Final Remarks**

Chronic non-communicable diseases require intense attention and management to limit risk factors and reduce their impact on quality of life. Support and collaboration between patients, medical professionals, and relatives are essential to encourage independence and an active lifestyle for affected individuals. Multimorbidity in the elderly further complicates the situation, necessitating adaptation and strict adherence to medical recommendations.

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A – Koncepcja i projekt badania,

- B Gromadzenie i/lub zestawianie danych,
- C Analiza i interpretacja danych,
- D Napisanie artykułu,
- E Krytyczne zrecenzowanie artykułu,
- F Zatwierdzenie ostatecznej wersji artykułu

Data otrzymania: 5.07.2024 Data akceptacji: 14.07.2024