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DETERMINING THE NEED OF THE ELDERLY PEOPLE FOR DENTAL PROSTHETIC RESTORATIONS IN THE CHUVASH REPUBLIC

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Abstract

The proposed article deals with a summary of characteristics of statistical data on the need of the local population for dental health services. It lists the factors contributing to the increase in the need for orthopedic dentistry services. All the factors described are contained in an order of priority. Based on the public and social significance of the problem the authors show the relevance of the work on studying the oral health related quality of life of elderly people. The article describes the current population trend and peculiarities of the socialization of elderly people in modern society. It shows specific features of measuring the oral health related quality of life of the elderly and senile patients in view of the comorbidity of their condition and dental profile. It gives characteristics of clinical, psychological and social factors which form the emotional state of the elderly people visiting health care institutions. It also describes results of own studies on patterns of dental diseases among the population in the city of Cheboksary in the Chuvash Republic.

Key words: dental morbidity patterns, comorbidity, quality of life, gerontology, dentistry.

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INTRODUCTION:

Importance of this problem is based on the emerging global population aging trend. The natural aging of population is an inevitable component of modern society based on declining fertility and increasing mortality of persons of working age on the one hand. On the other, the reforms of the health care system implemented in our country in the past decades sequentially have made it possible to increase the quantity and quality of medical highly-skilled services which allow to provide early diagnosis and treatment of visceral diseases that are the main cause of mortality among population to this day [1, 2].

The visceral diseases very often reflect on oral health. Organs and tissues injuries in the oral cavity unavoidably cause appearance dissatisfaction, confusion when the person smiles, laughs or communicates, inability to take favorite food, taste inability, inability to speak and swallow. All of these matters make it very difficult to conduct daily activities for a person, they have a negative effect on self-confidence and social behavior (Marshall B.J., McGachie D.B., Rogers et al., 1985). In the modern medicine the listed characteristics are referred to as the quality of life measures. For the past decades, this research field has become one of the priorities [3, 4].

There was no multi-method research of the quality of life of elderly people with a comparative analysis of clinical and social measures based on studying dental morbidity patterns among the population conducted in the Chuvash Republic.

MATERIAL AND METHODS:

A comprehensive study on specific features of measuring of quality of life of the elderly and senile patients. The methods employed during the process of studying the measurement of the quality of life of the elderly and senile patients included a logical and statistical analysis.

Dental health services are the most popular health care services provided mainly in outpatient polyclinic units. Analyzing the information with regard to visiting medical institutions by patients we can conclude that the visits to the dentists represent 15-20% of the total number. According to literature data the need for orthopedic dentistry services is 80% on average among middle-aged people and 100% among elderly people [5].

Most authors concur that if it was a high dental diseases prevalence level, a low level of providing specialized medical care and medical geography factors among the reasons for the need for orthopedic dentistry services which occupied the first place earlier it is socio-economic and demographic factors due to the global population aging trend which occupy the first place now [6].

Present-day Russia sets great and ambitious goals, one of which is increasing life expectancy of the local population. Nowadays, elderly people take an active position and have an active lifestyle. One of the social well-being of people measures is the sufficient quality of their life. The oral health related quality of life is a multifaceted concept and a result of interactions of various socio-economic, climatic and geographic, ecological and medical factors. The combination of these factors determines the public well-being of this large group of patients and the quality of life measuring becomes one of the challenges to modern medicine.

Elderly people represent a specific dental patients' group. Most elderly people don't have a history of one or even two chronic long-term somatic diseases, they have a higher number of diseases, dental manifestations of which require intervention by a prosthodontist. The vast majority of them already used orthopedic dentistry services. This use could be both positive and negative in nature. The usage of prosthetic restorations is 5-8 years on average, after which they need to be replaced [7, 8, 9].

Oral health care of the population is one of the challenges to the modern health care. The important mechanism to resolve the challenge is a comprehensive study on dental morbidity patterns among the population. To this end, there was carried out a study of the elderly and senile patients in the city of Cheboksary in the Chuvash Republic. The group to be studied included 1000 elderly people. The group of "young old people" was constituted by dental patients aged between 60 and 74. The group numbered 408 persons who made 40.8% of the total number of the patients to be studied. The group of "old people" was constituted by dental patients aged between 75 and 89 numbering 481 persons who made 48.1% of the total number of the patients to be studied. Patients aged 90 and over were grouped together into the "Long-living people" group; it was the smallest group of 111 persons who made 11.1% of the total number of the patients (Fig. 1).

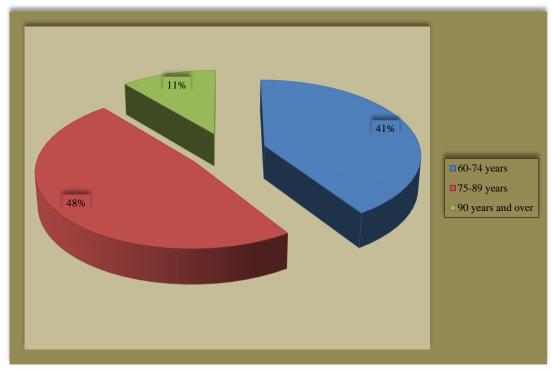


Fig. 1. Age related peculiarities of the elderly and senile patients

In addition to the age distribution all the patients to be studied were grouped into the groups on the basis of the Kennedy classification of edentulous areas (1923) which is easy to use for describing edentulous teeth in detail. The number of patients with complete secondary edentulism was counted separately. 120 persons (12%) had bilateral edentulous areas located posterior to the remaining natural teeth (Kennedy Class I). Unilateral edentulous area located posterior

to the remaining natural teeth (Kennedy Class II) occurred in 260 persons (26%). 200 persons (20%) were bothered with unilateral edentulous area with natural teeth both anterior and posterior to the area (Kennedy Class III). A single but bilateral (crossing the midline) edentulous area located to the anterior of the remaining natural teeth (Kennedy Class IV) occurred in 60 persons (6%). 360 persons (36%) were diagnosed with complete edentulism (Fig. 2).

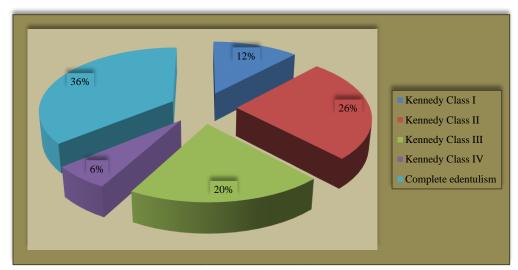


Fig. 2. Dental morbidity patterns among the elderly and senile patients

In addition to these classes edentulous teeth were classified based on modifications. Modification 1 means one extra edentulous space, Modification 2 - two extra edentulous spaces, Modification 3 - three extra edentulous spaces.

The performed analysis of dental morbidity patterns among the elderly and senile patients has shown that 120 persons had bilateral edentulous areas located posterior to the remaining natural teeth (Kennedy Class I) who made 12.0% of the total number of the elderly and senile patients, 27 persons (2.7%) of whom had one extra edentulous space, 51 persons (5.1%) - two extra edentulous spaces and 42 persons (4.2%) - three extra edentulous spaces.

It was identified that 260 persons had unilateral edentulous area located posterior to the remaining natural teeth (Kennedy Class II) what made 26.0% of

the total number of the elderly and senile patients. Of these, 83 persons (8.3%) had one extra edentulous space, 106 persons (10.6%) - two extra edentulous spaces and 71 persons (7.1%) - three extra edentulous spaces.

197 elderly and senile patients had unilateral edentulous area with natural teeth both anterior and posterior to the area (Kennedy Class III). Of these, 82 persons (8.2%) had one extra edentulous space, 58 persons (5.8%) persons - two extra edentulous spaces and 60 persons (6.0%) - three extra edentulous spaces. A single but bilateral (crossing the midline) edentulous area located to the anterior of the remaining natural teeth (Kennedy Class IV) occurred in 60 persons (6.0%)

Complete edentulism occurred among 360 persons (36.0%) (Fig. 3).

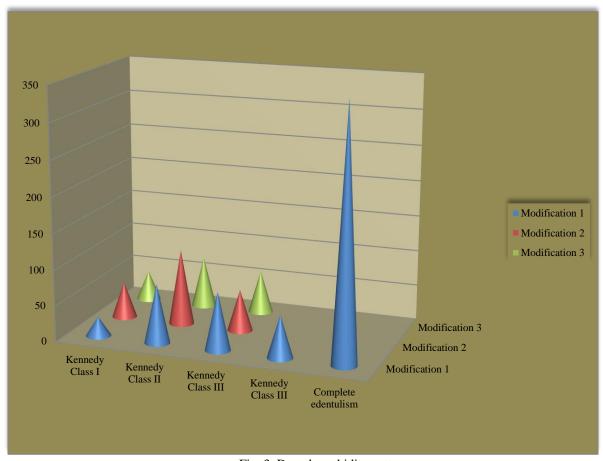


Fig. 3. Dental morbidity patterns among the elderly and senile patients

RESULTS AND DISCUSSION:

The performed analysis of the dental morbidity patterns among the elderly and senile patients has shown that the deterioration of the clinical situation indirectly reflects an increase in Kennedy Modification. The number of missing teeth begins to rise with increasing age of the patients examined.

The number of persons with complete edentulism which invariably rises with increasing age also testifies to the deterioration of the clinical situation. The dynamics of the process are easy to see within the groups studied (Fig.4).

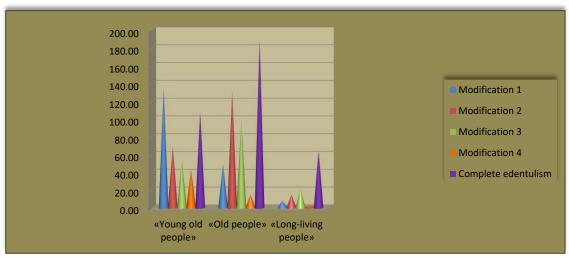


Fig. 4. Dental morbidity patterns among the elderly and senile patients

CONCLUSION:

The comprehensive study on the dental morbidity patterns among the population is a stable basis for the further in-depth analysis of the quality of life of the elderly and senile patients in order to increase life expectancy and social activity of the population.

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