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# RESULTS OF PREVALENCE OF DENTAL CARIES AMONG THE ELDERLY POPULATION

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**Annotation**. Human aging, like the aging of other organisms, is a biological process - the gradual - gradual degradation of parts and systems of the body, and as a result of this process, for example, the loss of mental ability. The loss of competence is considered to be of great importance to the individual. In addition, psychological, socio-economic ethics play an important role.

**Keywords:** caries, Aging Age, KPO index.

**Log in.** People of old age and old age often need medical care, including dental care. Failure to visit the dentist in a timely manner can lead to changes in the KPO index and, as a result, partial or complete toothlessness. According to the definition of the International Association of Gerontologists, the prevention of premature aging and the long-term maintenance of functional and social activity of the population are considered a priority of medical science [4-16].

The complete loss of teeth leads to morpho-functional changes in the entire tooth jaw system and a sharp decrease in chewing efficiency. Indicators of medical-social and somatic status are closely related to indicators of dental status in older patients. The more important the state of the oral cavity is in a person's chewing and eating, the more important it is for a person's overall health and quality of life [23-310]

As patients age, it becomes more difficult for them to undergo orthopedic treatment, and the time for the patient to get used to orthopedic construction takes longer. The level of training for orthopedic detachable prostheses depends on the condition of the treated body integrity, age, presence of side effects, nervous system activity, and psychological state [2-7].

The dental condition of oral cavity in elderly patients is an indicator of their standard of living, social support, lifestyle and general health of this age category of the population. During the period of providing dental care to patients of this age, it is necessary to consider not only the age of the patient but also his/her social, psychological and physical status [3-9].

An external sign of aging of teeth is a change in the color of the enamel and the appearance of cracks. The shape of the teeth changes due to friction, the loss of grooves makes the enamel surface more slippery [12].

Quality of Life, (Oral Health-Related Quality Of Life, OHRQoL) is a multidimensional concept, i.e., a multidimensional concept that affects the vitality of oral health or dental diseases and the overall quality of life of a person [23–29].

The link between oral health, clinical indicators, and quality of life in older people has not been fully studied. According to a number of authors, OHRQoL is associated with the socioeconomic status of regular visits to the dentist [9–21].

The presence of a large number of healthy teeth and the absence of defects in tooth rows have the most reasonable effect on tooth OHRQoL, whereas the presence of decayed teeth, the presence of defects in tooth rows, reflects the impact on quality of life [21-32].

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**Purpose of the investigation.** Determination of the degree of intensity of dental care and the state of disease intensity of paradontic tissue in elderly patients from different social groups living in the Bukhara region

**Examination materials and methods.** This study included patients in need of orthopedic rehabilitation with partial and complete displacement. However, the severity of paradontic disease could only be assessed in patients with partial toothlessness, so we did not consider elderly patients with complete toothlessness in our study (Table 1).

To assess the severity of paradontic disease, we used the CPI index in our study. It's important to note that we didn't take healthy tissue into account in our study.

Table 1
Division of patients in the study with partial toothlessness into groups. (%)
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Research Groups	Males %		Women	%	Total %	, 0
Group 1 Bukhara Women's Home for Persons with Disabilities	19	55,8%	15	44,1%	34	36,1%
Group 2 Patients living under the care of relatives	17	47,2%	19	52,7%	36	38,2%
Group 3 Patients living alone	11	45,8%	13	54,1%	24	25,5%

**Extracts.** When conducting a clinical trial at the data collection phase, high rates of dental cage prevalence were recorded in patients. In this connection, it was decided to assess only intensity. Our study used the KPO index, which represents a quantitative assessment, to assess the intensity of dental cage. Indicators of caries intensity in examined patients. To study the intensity of dental caries in detail between patients, each of the patients included in the study was analyzed in the cross-groups and groups.

Analysis of quantitative indicators of CPU index in patients with group 1 Table 1

	Index value				
	K	P	О	KPOt	
Men	2.89±0.61	2.92±0.46	19.01±0.97	24.83±1.01	
Women	2.94±0.51	2.89±1.03	18.54±0.98	25.61±1.08	
Reliability Differences in results	t=0.6 P<93.53%	t=1.2 P<94.8%	t=0.1 P<94.8%	t=0.6 P<95.5%	

For this, value was determined in each group with clinical signs of carious lesions (caries, filled and erupted teeth). The data are presented in Tables 1-4 and in Figures 1-4. For the evaluation of the intensity indicators of cariel lesions within the group was divided by the gender of the patients. Indicators of the intensity of the karyosis process in patients of group 1 are given in Table 1 and Figure 1.

Group 1, the mean value of the K index in men is  $2.89 \pm 0.61$ , and in women it is  $2.94 \pm 0.51$ . The average number of filled teeth in women group 1 is slightly higher than in men in this group (compared to  $3.93 \pm 0.64$ ).  $2.92 \pm 0.46$ ). The highest quantitative indicators among all components were recorded when comparing Y index values:  $18.9 \pm 1.24$  and  $19.05 \pm 1.34$  in Men and Women, respectively. When comparing CPOt scores in group 1, a very high intensity was recorded for both men  $(25.47 \pm 0.75)$  and for women  $(26.12 \pm 0.83)$ . All the values taken are close enough, but statistical

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processing has shown that these indicators are not (t<2). Indicators of the intensity of the karyosis process in patients of group 2 are given in Table 2 and Figure 2.

Table 2

#### Quantitative indicators of CPU index in patients with group 2.

	Index value				
	<u>K</u>	<u>P</u>	<u>O</u>	<u>KPOt</u>	
Men	3.89±0.52	1.49±0.48	17.1±0.42	24.49±1.64	
Women	3.68±0.7	2.98±0.58	18.7±1.27	25.14±0.58	
Differences in reliability results	t=0.6 R<95.5%	t=0.8 R<95.5%	t=0.6 R<95.5%	t=0.5 R<95.5%	

Whe n com parin g the incid ence of carie s in

patients, the mean value of the K index in men in group 1 was  $3.89\pm0.52$  and  $3.68\pm0.7$  in women, respectively. The average indicators of filled teeth1 in the group of women was  $2.98\pm0.58$ , and in men it was  $1.49\pm0.48$ .

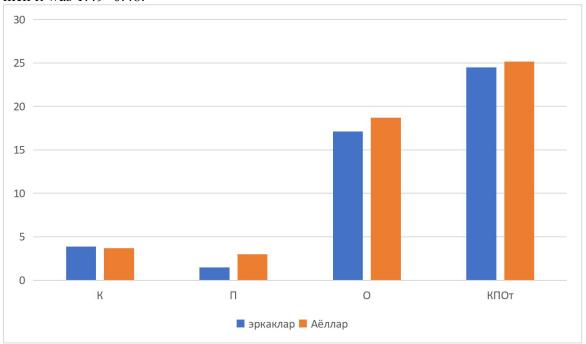


Figure 2. Group 1 Manifestation of quantitative indicators of the CPU index in patients.

Among the KPO indicators, the highest was the O index, which was  $18.7\pm1.27$  in women and  $17.1\pm0.42$  in men. Teeth slightly more than the number of those removed in group 2 were compared to the CPO index in patients of group 1 when compared with the CPO index in both men  $(24.49\pm1.64)$  and women  $(25.14\pm0.58)$  high intensity was detected. All the obtained values are very close to each other, but statistical processing showed that these indicators showed no difference in mutual reliability (t<2).

#### Quantitative indicators of CPU index in patients with group 2.

	Index value				
	<u>K</u>	<u>P</u>	<u>O</u>	<u>KPOt</u>	
Men	4.01±0.51	2.59±0.48	17.19±0.42	25.45±0.98	

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Women	3.88±0.7	2.03±0.58	17.76±1.27	25.51±0.78
Reliability Differences in results	t=0.6	t=0.8	t=0.6	t=0.5
	R<95.5%	R<95.5%	R<95.5%	R<95.5%

In Grou p 2, the mea

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value of the K index was  $4.01\pm0.51$  in men and  $3.88\pm0.7$  in women, respectively. The quantitative indicators of the P index were very close,  $2.59\pm0.48$  in men and  $2.03\pm0.58$  in women. The mean values of the extracted teeth  $(17.76\pm1.27)$  were slightly higher than in the ratio of men  $(17.19\pm0.42)$ . The mean score of group 2 was  $25.45\pm0.98$  in men and  $25.51\pm0.78$  in women.

All the obtained values are very close to each other, however, statistical processing showed that these indicators did not differ in mutual reliability (t<2).

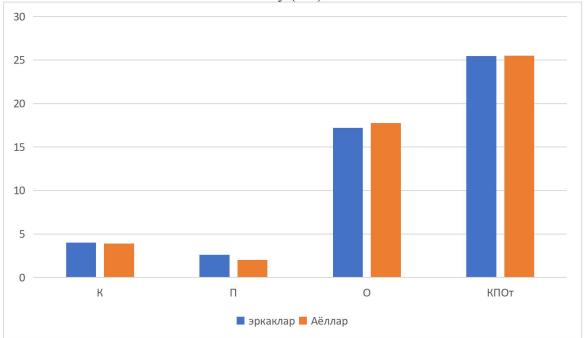


Figure 3. Group 2 Manifestation of quantitative indicators of the CPU index in patients

Data comparing the severity of CPI quantitative readings in patients in the two groups are presented in Table 9 and Figure 16. They show that the values of K index patients in groups 1 and 2 were nearly identical (3.39 at 0.38 and 3.93 at 0.47, respectively) and that those with increased values were found in patient group 3 (2.73 at 0.44). However, the obtained indicators do not provide statistical reliability (t<2, P<95.5%).

When the number of filled teeth was measured in both groups of patients, it can be seen that it was 2.45 in group 1 and 2.43 in group 2. From these results, it can be seen that the average value content is significantly higher in group 2. When we analyze the average value of the number of teeth obtained, we can see that in group 1 it was  $17.98\pm0.9$ , and in group 2 it was  $18.16\pm1.09$ .

Quantitative indicators of the KPO index in patients in both groups.

Importance of	Group 1	Group 2	Confidence of re	sult difference
KPI Index			t (Studenta	\
			Criterion)	certainty analysis)

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K	2.91±0.51	3.94±0.27	0,9	<95.5%	
P	2.90±0.3	2.31±0.4	0	<95.5%	
О	18.77±0.7	17.47±1.07	0,6	<95.5%	
KPOt	25.22±0.46	$25.48 \pm 0.64$	0,4	<95.5%	

Similarly, we can see a significant difference in the quantitative indicators of the average of the CPI results. This value was  $24.81\pm0.56$  in group  $1.25.51\pm0.64$  In group 2, the difference in reliability between quantitative indicators is determined, when comparing the KPI values, a significant increase in the total value of the KPO index in patients of group 2 indicates a higher confidence.

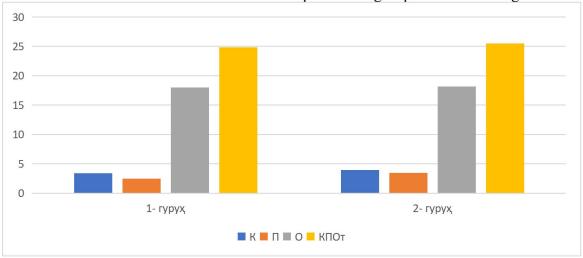


Figure 4. View of quantitative KPO index scores in patients in both groups.

Conclusions. In identifying the specifics of adaptation to removable dentures in elderly patients, it has been shown that their living conditions, lifestyle and environment affect the duration of the adaptation process to removable dentures.

Based on the results obtained, it can be said that molding through a modified method of the proposed individual spoon is relatively more beneficial than molding in the standard method, and at the same time improves the quality of life of the dental patient, it accelerates the patient's accustomement to removable dental prostheses. At the same time, it significantly reduces the number of re-appeals for minor prosthetic correction. That's because these patients are a problem in and of themselves.

#### References:

- 1. Алимова, Н. (2021). Влияние аденоида на физическое развитие и иммунную систему детей. Общество и инновации, 2(2/S), 391-398.
- 2. Алимова, Н. П. (2020). Антропометрическое исследование лицевого индекса студентовмедиков. Молодые ученые–медицине.
- 3. Алимова, Н. П. (2021). Оценка Состояние Детей С Гипертрофий Аденоидов В Педиод Карантина. Online Scientific Journal of Sustainability and Leadership Studies, 1(6), 774-785.
- 4. Алимова, Н. П. (2022). Анализ Антропометрических Параметров Лицевой Области И Физического Развития Детей С Гипертрофией Аденоидов До И После Аденоэктомии. Central Asian Journal of Medical and Natural Science, 3(3), 132-137.
- 5. Алимова, Н. П. (2023). Морфометрических изменения челюстно-лицевой области детей с гипертрофией аденоидами. Journal of interdisciplinary innovation and research in Uzbekistan, 2(17), 166-177.

SJIF 2019: 5.222 2020: 5.552 2021: 5.637 2022:5.479 2023:6.563 2024: 7,805 eISSN :2394-6334 https://www.ijmrd.in/index.php/imjrd Volume 12, issue 03 (2025)

- 6. Алимова, Н. П., & Асадова, Н. Х. (2020). Изучение анатомии через проблемно обучение среди студентов медиков. In Сборник материалов международной учебной онлайн конференции "Современное состояние медицинского образования: проблемы и перспективы (pp. 138-139).
- 7. Алимова, н. П., & асадова, н. Х. (2022). Method for determining the size of hypertrophied pharyngeal tonsils using ultrasound diagnostics. Журнал биомедицины и практики, 7(3).
- 8. Алимова, Н. П., & Тешаев, Ш. Ж. (2023). Антропометрических результаты челюстнолицевой области детей с гипертрофией аденоидами. Journal of interdisciplinary innovation and research in Uzbekistan, 2(17), 154-165.
- 9. Алимова, Н. П., Ильясов, А. С., & Камалова, Ш. М. (2022). Показатели Антропометрических Показателей Физического Развития Детей I Периода Детства Бухарской Области. Research Journal of Trauma and Disability Studies, 1(9), 193–201.
- 10. Алимова, Н. П., Хасанова, Д. А., Камалова, Ш. М., & Асадова, Н. Х. (2020). Modern phytopreparations in complex treatment of lympharyngeal ring pathology in children. Новый день в медицине, (4), 484-485.
- 11. Жумаев, А. Х. (2021). Method for assessing the state of the oral mucosa in dental defects. Узбекский медицинский журнал, 2(2). Journal of Science in Medicine and Life Volume: 1 Issue: 2 Year: 2023
- 12. Жумаев, А. Х. (2021). Microbiological study of the oral cavity for prosthetics of defects of dentition. Узбекский медицинский журнал, 2(2). 13. Жумаев, А. Х. (2021). Гигиенические Условия Протеза У Пациентов Старческого Возраста. Online scientific journal of sustainability and leading research, 1(6), 806-815.
- 13. Жумаев, А. Х. (2021). Микробиологическое исследование полости рта для протезирования дефектов зубовых зубов. Узбекский медицинский журнал, 2(2).
- 14. Жумаев, А. Х. (2021). Особенности Стоматологического Статуса Пациентов Старших Возрастных Групп. Online scientific journal of sustainability and leading research, 1(6), 853-865.
- 15. Жумаев, А. Х., & Саидов, А. А. (2022). Оценка Индекса Гигиены Полости Рта У Пациентов С Частичной Аденитей У Старших Возрастных Групп Г Бухары. Central Asian Journal of Medical and Natural Science, 3(3), 138-143.
- 16. Жумаев, А. Х., & Саидов, А. А. (2022). Оценка качества жизни при ортопедическом лечение пациентов с заболеваниями слизистой оболочки ротовой полости. Journal of interdisciplinary innovation and research in Uzbekistan, 1(8), 704-710.
- 17. Жумаев, а. Х., & саидов, а. А. (2022). Сравнительная оценка адентии зубных рядов верних и нижней челюстей у пожилого населения. Т [a xw [i [s us s s^[üe yfcs^, 358.
- 18. Хамидович, Ж. А., & Ахадович, С. А. (2022). Сравнительный Анализ Качества Жизни. При Ортопедическом Лечение Пациентов С Заболеваниями Ротовой Полости. Miasto Przyszłości, 24, 185–189.
- 19. A.N. Akbarov, A. Jumayev. (2020). Hygienic condition of prostheses in patients with partially removable dental prostheses. PalArch"s Journal of Archaeology of Egypt / Egyptology, 17(6), 14351-14357.
- 20. Akbarov, A. N., & Jumaev, A. K. (2019). The choice of materials depending on the topography of partial dentition defects. ACADEMICIA: An International Multidisciplinary Research Journal, 9(12), 46-49.
- 21. Alimova N. P. Anthropometric parameters of the head and maxillofacial region in children with adenoids //International Engineering Journal for Research & Development. 2020. T. 5. No. ISCCPCD. C. 2-2.
- 22. Alimova N.P. Anthropometric Parameters and Facial Analysis in Adolescents// International Research Development and Scientific Excellence in Academic Life /2021/85-86

SJIF 2019: 5.222 2020: 5.552 2021: 5.637 2022:5.479 2023:6.563 2024: 7,805 eISSN :2394-6334 https://www.ijmrd.in/index.php/imjrd Volume 12, issue 03 (2025)

- 23. Alimova N.P., Asadova N.Kh. Method for determining the size of hypertrophied pharyngeal tonsils using ultrasound diagnostics// Journal of Biomedicine and Practice Samarkand, 2022. –T7 No. 3. P. 237-242.
- 24. Alimova, N. P. (2021). Comparative characteristics of anthropometric parameters of 5-6-yearold children in urban and ruralAreas of Bukhara. In International scientific-online conference on Innovation in the modern education system," Washington, USA (pp. 296-268).
- 25. Alimova, N. P. (2021). Comparative characteristics of the anthropometric parameters of the head and maxillofacial region in children with adenoids. Новый день в медицине, (1), 203-208.
- 26. Alimova, N. P. New day medicine. New day in medicine Founders: Bukhara State Medical Institute, LLC "New day in medicine", (2), 280-282. Journal of Science in Medicine and Life Volume: 1 Issue: 2 Year: 2023
- 27. Alimova, n. P., Ilyasov, A. S., & Kamalova, S. M. (2022). Indicators of anthropometric indicators of physical development of children i childhood period of Bukhara region. Research journal of trauma and disability studies, 1(9), 41-48.
- 28. Hamidovich, J. A., & Ahadovich, S. A. (2022). Assessment of Quality of Life During Orthopedic Treatment of Patients with Diseases of the Mucosa of the Oral Cavity. Texas Journal of Medical Science, 8, 96-100.
- 29. Ilyasov, A. S., & Alimova, N. P. (2022). Anthropometric indicators of physical development of boys and girls in bukhara region. British Medical Journal, 2(4).
- 30. Jumaev, A. A., & Eshpulatov, A. (2023). Analysis of caries intensity in an elderly people in bukhara. Conference, 42-44.
- 31. Jumayev, A. H. (2023). Adaptation to removable dentures in elderly patients. Journal of interdisciplinary innovation and research in Uzbekistan, 2(17), 178-188.
- 32. Jumayev, A. K., & Eshpolatov, A. (2023). Adaptation to prosthetics that can be obtained in older patients. Open Access Repository, 4(3), 1199-1210.
- 33. Khamidovich, J. A., & Akhadovich, S. A. (2022). Сравнительная оценка адентии зубных рядов верних и нижней челюстей у пожилого населения. Journal of Biomedicine and Practice, 7(3).
- 34. Pulatovna, A. N., Muzaffarovn, K. S., & Radjabovich, B. R. (2023). Results of anthropometric studies of the maxillofacial region of children with hypertrophy of the adenoids. Open Access Repository, 4(3), 1183-1194.