**ANALYSIS OF THE RELATIONSHIP FACTORS WHICH DETERMINED THE QUALITY**

**OF ORTHOPEDIC DENTAL CONSTRUCTIONS**

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The purpose of the study was to analyze correlation relationships between organizational and technological factors that may affect the quality of orthopedic designs.

Materials and methods. To study the clinical and technological quality of orthopedic constructions of dentures from materials of domestic production, carried out under the integrated program aimed at the study of the following types of prostheses: 20329 artificial crowns (plastic – 13304; combined by Belkin, Borodyuk, Akhmetov – 7025 ), 15621 bridge dentures (plastic – 9789; combined – 5832), 23538 laminar dentures (partial – 11340; full – 12190) 8903 and bugel prosthesis (with locking elements in the form of clasps system Ney – 7100 and with a locking fixation – 1803).The total number of analyzed constructions of dentures – 68391; the total number of doctors - prostetic-dentists 75 people, dental technicians – 103 people.

Results and discussion. In the early period of clinical exploitation determinants of quality of designs is the structure of staffing of physicians dental clinics, in particular – the index of staffing (F9: COP=0,727) and the proportion of orthopedic dentists of the first qualification category (F2: KC=0,453), while in the distant period the most influential factor is qualification of dental technicians: the proportion of dental technicians without qualification category (F8: COP=0,517).

To ensure the quality of the crowns in the early period the most significant are the level of doctors orthopedists – dentists of second (and higher) qualification (F3: rXY=-0,325) and dental technicians of first qualification category, and in the distant period there was an inverse medium strength correlation with the proportion of dental technicians without categories (F6: rXY=-0,402).

For bridges in the early period of their clinical explotation the most significant has been the impact of prosthodontists qualified dentists, in particular F2 (rXY=-0,918), F3 (rXY=+0,665), F4 (rXY=+0,435). Somewhat different patterns are found for removable laminar dentures, namely: F2 (rXY=-0,378), F4 (rXY=-0,513), F6 (rXY=-0,256).

It should be noted that the quality of partial dentures is largely determined by the qualification of dental technicians F7 (rXY=-0,400), F8 (rXY=+0,482) than the qualification doctors orthopedists – dentists F2 (rXY=-0,509).As demonstrated in correlogram relationships index of technological quality (Fig. 2) in the generalized form we can come to the conclusion that the most significant factor of manufacturing quality orthopedic constructions of dentures is the structure of the medical staff and its qualifications. Thus, regardless of these factors, clinical operation of prosthetic constructions is marked by a decline in their quality, which cannot be explained by qualified personnel and requires a more detailed investigation from the standpoint of material science and dental technology of dental prosthesis.

Conclusions.

1. The quality of artificial crowns in the early period of clinical use depends on the level of doctors orthopedists – dentists second (and higher) qualification (F3: rXY=-0,325), and tooth-technical laboratories - dental technicians I qualification category; in long - term period average inverse power relationship with the proportion of dental technicians without categories (F6: rXY=-0,402) and the quality of orthopedic designs.
2. For bridges in the early period of their clinical exploitation the most significant has been the impact of prosthodontists qualified dentists, in particular F2 (rXY=-0,918), F3 (rXY=+0,665), F4 (rXY=+0,435).
3. In early and distant periods of clinical exploitation, quality laminar dentures depends on the qualification of personnel, design of prosthesis and technical equipment of dental laboratory: F2 (rXY=-0,378), F4 (rXY=-0,513), F6 (rXY=-0,256).
4. The quality of bugel dentures is largely determined by the qualification dental technicians F7 (rXY=-0,400), F8 (rXY=+0,482) than the qualification of doctors orthopedists – dentists F2 (rXY=-0,509).

Prospects of the further researches of interrelations between the quality of orthopedic designs in the early and distant periods of their clinical exploitation associated with the assessment itlike properties of dental materials and clinical and technical factors of treatment.