

The effectivity of oral hygiene routines depending on the method of patient education

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Background and Aim

The aim of the research was to determine whether intraoral individual instructions are advantageous correlated to extraoral practical instructions or not, and to assess if improvement of clinical parameters can be achieved this way.

Materials and methods

30 subjects were randomly divided into two groups. Periodontal status, plaque index (FMPS), gingival index (FMBS), and interdental bleeding index (FMIDBI) had been recorded at the start (Fig. 1.), and ultrasonic scaling also had been performed. At the next stage, the control group (C) received oral practical instructions on toothbrushing and interdental cleaning, demonstrated on a model; oral healthcare products, and written information about the proper cleaning techniques. The test group (T) besides these, received individual instructions in their mouth tailored to the given oral conditions according to the principles of Individually Trained Oral Prophylaxis (iTOP) (Fig. 3.) . iTOP covers the usage of the modified Bass-technique with an ultra soft toothbrush, and interdental brushes of the proper size what was measured with a special IAP probe (Fig. 1, on the right). It means that only the members of the T group could experience how the correct technique is performed, so they had been trained how to use the devices properly. Reevaluation and remotivation of the patients was performed 1,3 and at least 5 months after the first appointment.



Fig 1. Investigated parameters (FMPS, FMBS, FMIDBI)

$$\text{FMPS: } \frac{\text{surfaces covered with plaque} * 100}{\text{number of teeth} * 6} (\%)$$

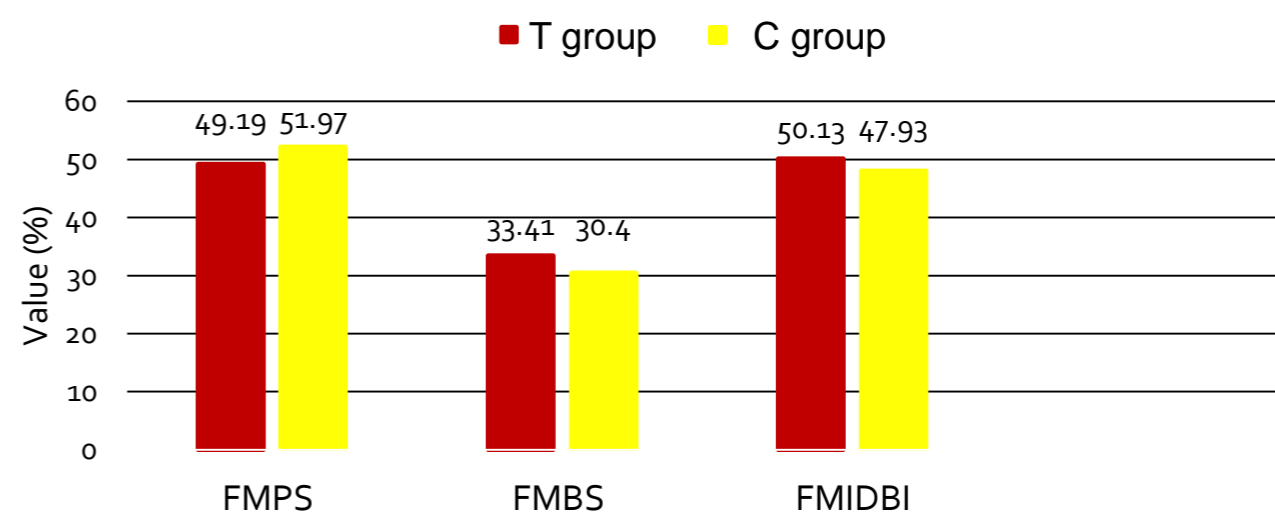
$$\text{FMBS: } \frac{\text{gingival surfaces bleeding on probing} * 100}{\text{number of gingival surfaces} * 6} (\%)$$

$$\text{FMIDBI: } \frac{\text{all bleeding interdental spaces} * 100}{\text{number of interdental spaces} * 6} (\%)$$

Fig 2. Calculation of clinical parameters



Fig 3. Intraoral instructions according to iTOP

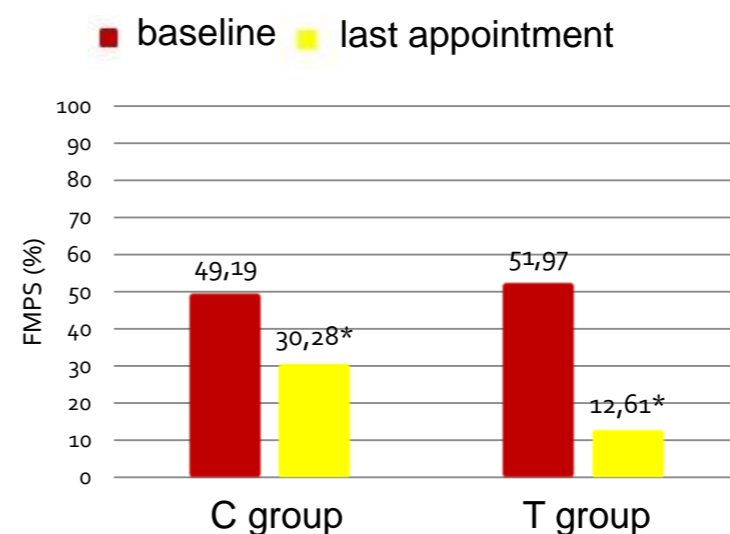


Graph 1. Mean clinical parameters at baseline

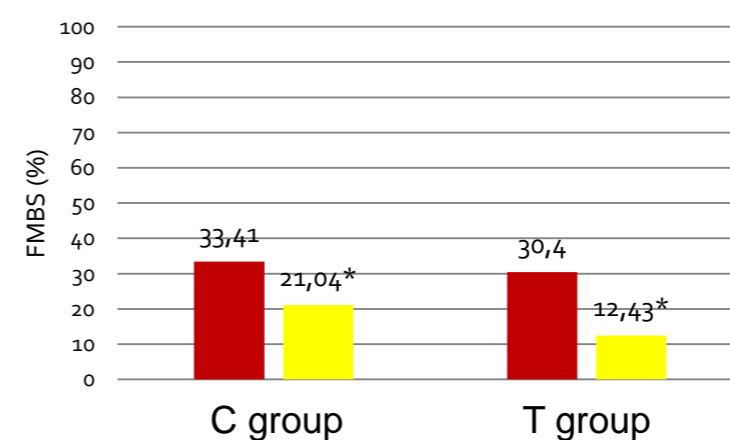
Results

It was not surprising that huge improvement had been noticed after the first month, and in both groups, because the initial oral hygiene of the examined population was mainly poor. However, the subjects in the T group had better values from the time of the first reevaluation, and improved more than the C group, what shows the effectivity of intraoral instructions.

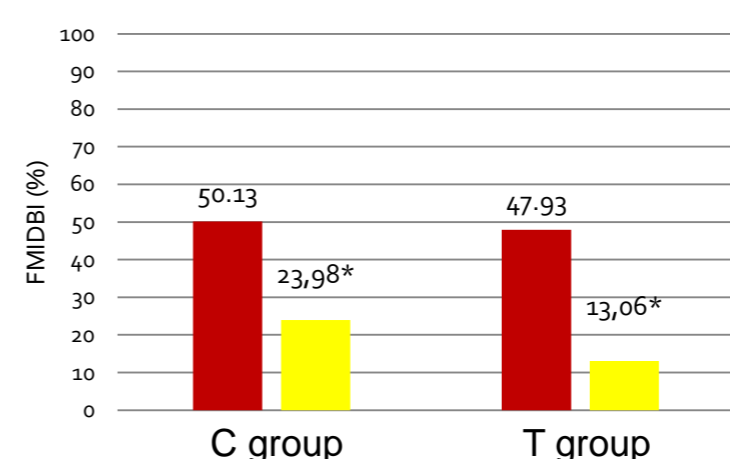
The achieved average changes in clinical parameters show the superiority of the T group (Graph. 2,3,4)



Graph 2. Change of FMPS



Graph 3. Change of FMBS



Graph 4. Change of FMIDBI

* = p < 0,05

Conclusions

The individually trained group (T) showed significantly (p<0,05) better results at the end of the research period (Graph. 2,3,4) regarding the clinical parameters (Fig. 2) and the average of improvement too. It can be stated, that individually tailored oral hygiene instructions improve the efficacy of motivational efforts.