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*Oral health status of patients from the Lublin Region between  
the age of 18 to 30 years in relation to the expectations  
of the World Health Organisation (WHO)*

The oral health status of humans depends on four groups of phenomena such as the individual personal condition, efficiency of dental care, health behaviour as well as political, social, economic and environmental factors. This opinion is especially useful in the search for cause-effect relationships for the occurrence of non-typical diseases, the etiopathogenesis of which may be related to numerous factors (3), such as dental caries and diseases of dental plaques which determine the health status of the oral cavity; the appropriate hygiene leads to their reduced occurrence.

The World Health Organisation (WHO) has been formed, among others, to co-ordinate and support the actions aiming at continuous improvement of oral health state in the member states. It is thus necessary to gather information about the health situation and answer the question whether our activity brings satisfactory results and to what degree. An essential term introduced by WHO is *selfcare*. Its meaning is that individual persons take care of their own health and take some responsibility for their personal health. Every individual should be aware of the necessity to visit regularly a doctor of stomatology to obtain specialised help (6).

The objective of the present study was to determine the oral health status of young persons (18–30 years) visiting the Department of Conservative Dentistry Medical University of Lublin. These persons visited the clinic seeing the necessity to control the state of their oral health and for treatment this group of persons can be considered as an interesting material for investigations since they can be classified as *selfcare* group.

It is hoped that the results of investigations of this group of patients will provide information to what extent the activity of the stomatological care improves the oral health state of young persons and fulfils the expectations of objectives of WHO in the Lublin Region.

#### MATERIAL AND METHODS

Thirty-seven persons in the age range of 18–30 years (21 females and 16 males) were investigated who came to the Department of Conservative Dentistry, Medical University of Lublin to control their oral health status and for treatment. Thirty-two patients came from towns and five from villages, 32 had higher education. 14 had secondary and five – elementary education.

The whole group had a good general health status. In our own examinations we applied the PUW number and its components to characterise the oral health status. The simplified Green-Vermillion parameters of OHI and its components were used to estimate the oral hygiene. The state of periodontium was expressed by the CPI index. The examination was carried out by the same person at artificial light using a mirror and dental probe.

Table 1. Social status of the examined patients according to their education, origin and sex

	Total	Sex		Origin		Education		
		male	female	town	village	higher	secondary	elementary
Number of patients	37	16	21	32	5	22	14	1

## RESULTS

Table 2 presents the oral state of the patients examined: most of the persons were in the range of  $P > 4$  (48.7%), which indicates an increased progress of caries processes. In the group 43.2% were in the range 11–15 of the PUW value and for 37.9% of patients the PUW value was above 15.

None of the patients had healthy dental status, i. e., free of caries and fillings. An exceptional positive result of *selfcare* was the fact that none of the patients had lost even a single tooth as a result of caries. Detailed information concerning the oral health status of the group examined is presented in Table 2.

Table 2. Distribution of mean numbers PUW, P and U values of the patients

	PUW					Total	P				Total	U			Total
	0	1–4	5–10	11–15	> 15		0	1–2	2–4	> 4		0	1–2	2–4	
Number of patients	0	2	5	16	14	37	2	5	12	18	37	20	10	7	37
%	0	5.4	13.5	43.2	37.9	100	5.4	13.2	32.4	48.7	100	54.0	27.0	19.0	100

Table 3. Per cent distribution of OHI and CPI values of the patients

	OHI				Total	CPI				Total
	0	0–1	1–2	2–3		0	1	2	3	
Number of patients	1	25	11	0	37	4	10	23	0	37
%	2.7	67.6	29.7	0	100	10.8	27.0	62.2	0	100

Table 3 illustrates the per cent distribution of OHI and CPI indexes of the group investigated. The data indicate good dental hygiene since for 67.6% of the patients the OHI index ranges from 0 to 1, which together with very good hygiene 27% results in 70.1% of good hygiene of the patients. The index of the state of periodontium is as follows: for 10.8% of the patients periodontium is healthy, for 20.7% gum bleeding occurred and for 62.2% dental and gingival plaque was detected.

## DISCUSSION

In the investigations of students of Lublin Universities in the age group of 10–20 years reported in 1995 the average PUW value was 11.94 and the average number of teeth with active caries was 3.12, which is comparable with our own investigations relating to the PUW index with somewhat higher index  $P > 4$  (4).

In the investigations of dental health state of secondary schools students reported in 2000 the P value was in the range 0–15, with average value  $6.77 \pm 3.81$  (2). Investigations on the occurrence of caries for 18-year-old students of Warsaw schools indicate high average PUW value of 10.5 and the P value for a single student was 5.0 (1). Investigations of dental health state of 18-year-old students of one of Lublin vocational schools reported in 2003 indicated the mean value of PUW index equal to 11.6, average P value as 5.5. For 80.7% of the examined students the

oral hygiene was found to be good, 60.2% had dental and gingival plaque and in 30% gum bleeding occurred (5).

In our present investigations of the group of persons within the age range 18–30 years we obtained results comparable with those reported above relating to the dental health state, periodontium and hygiene of the oral cavity. The results are still not satisfactory and it is necessary to intensify the action of all parameters which determine the oral health status.

## CONCLUSION

The oral health status of the inhabitants of the Lublin Region in the age group 18–30 years is still not satisfactory and still does not meet the expectations formulated by WHO.

## REFERENCES

1. Jodkowska E., Bugaj J.: Badania nad występowaniem próchnicy u 18-letniej młodzieży szkół warszawskich. *Mag. Stomat.*, 6, 12, 14, 1992.
2. Sikorska M. H. I., Mielnik-Błaszcak M.: Stan uzębienia młodzieży trzech klas licealnych z Lublina a cele WHO na rok 2000. *Stomat. Współcz.*, 7, 4, 47, 2000.
3. Szatko F.: Społeczno-ekonomiczne i organizacyjne uwarunkowania stanu zdrowotnego jamy ustnej polskiego społeczeństwa. *Czas. Stomat.*, 52, 8, 546, 1999.
4. Szymańska J., Kaczmarczyk-Figiel A.: Stan uzębienia młodzieży studenckiej w wieku 19–20 lat. *Czas. Stomat.*, 48, 159, 1995.
5. Ściak A. et al. The health state of oral cavity of 18-year-old students of vocational school without dental care. *Annales UMCS, D*, vol. 58, N 2, 364, 2003.
6. Wierzbicka M. et al. Oczekiwane kierunki rozwoju opieki stomatologicznej w Polsce w świetle prac warsztatowych Ekspertów ŚOZ z Krajowym Nadzorem Stomatologicznym. *Czas. Stomat.*, 52, 7, 483, 1999.

## SUMMARY

A group of 37 persons in the age range of 18–30 years who visited the Department of Conservative Dentistry, Medical University of Lublin, was examined. The included health state was determined by means of the PUW index and its components. The hygiene of the oral cavity was characterised by the Green and Vermillion index OHI and the periodontium by CPI index. It was found that for 43.2% of the patients the PUW index was in the range 11–15 and that for 48.7% of the patients the P value is above 4. In 10.8% of persons the periodontium was healthy, in 27.0% gum bleeding was observed and 62.2% had dental and gingival plaques. Good hygiene of oral cavity was observed in 70.1% of the patients.

Stan narządu zucia osób w wieku 18–30 lat z Lubelszczyzny a zalecenia Światowej Organizacji Zdrowia (WHO)

Badaniem objęto 37 osób w wieku 18–30 lat, zgłaszających się do Zakładu Stomatologii Zachowawczej AM w Lublinie. Grupę badanych zaliczono do osób *selfcare*. Określono stan uzębienia za pomocą wskaźnika PUW i jego składowych. Badano higienę jamy ustnej wg wskaźnika Greena i Vermilliona – OHI, stan przyzębia oceniono przy zastosowaniu wskaźnika CPI. Stwierdzono, że u 43,2% osób liczba PUW zawarta jest pomiędzy 11–15. Wartość  $P > 4$  posiadało 48,7% badanych. U 10,8% osób stwierdzono zdrowe przyzębie, w grupie 27,0% wystąpiło krwawienie, a 62,2% badanych miało kamień nazębny. Dobrą higienę jamy ustnej stwierdzono w grupie 70,1% badanych.