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Ocena wiedzy dotyczącej zdrowia jamy ustnej wśród lubelskich licealistów

The evaluation of oral health knowledge in secondary school students in Lublin

Streszczenie

Wstęp. Nacisk wywierany na młodych ludzi, aby osiągnęli dobre wyniki w wielu dyscyplinach życia powinien obejmować również zachęcanie ich do utrzymywania perfekcyjnej higieny jamy ustnej. Niestety wyniki polskich badań wskazują, że stan zębów i dziąseł polskich nastolatków według różnych wskaźników jest nadal niezadowolający.

Cel. Celem pracy było określenie poziomu wiedzy dotyczącej higieny jamy ustnej lubelskich licealistów.

Materiał i metody. Badaniem objęto 682 uczniów, w wieku 16-18 lat uczęszczających do lubelskich liceów, którzy odpowiadali na pytania dotyczące powodu zgłoszenia do gabinetu dentystycznego, przyczyn nie zgłaszania się regularnie do stomatologa oraz niektórych nawyków higienicznych.

Wyniki. Wyniki badań wykazały że, 17% uczniów zgłaszało się do stomatologa rzadziej niż raz w roku; 19% zmieniało szczotkę nie częściej niż raz na 3 miesiące; 38% licealistów, deklaroowało lęk przed wizytą u stomatologa. W badanej grupie 14% młodych osób utraciła jeden lub więcej zębów z powodu próchnicy. Zaskakujący był fakt, iż co piąty ankietowany licealista nie wiedział jaką liczbę zębów powinna posiadać dorosła osoba.

Wnioski. Wyniki badań wykazały niski poziom wiedzy dotyczącej zdrowia jamy ustnej, która przekładała się na niedostateczną motywację do odpowiedniego przestrzegania codziennej profilaktyki stomatologicznej, a także unikania kontrolnych wizyt u stomatologa.

Abstract

Introduction. The pressure put on young people to achieve good results in many disciplines of life should also include encouraging them to keep oral hygiene perfect. Unfortunately, results of Polish research show that the condition of teeth and gingiva of Polish teenagers according to different indicators is still unsatisfying.

Aim. The purpose of the study was to determine the level of oral hygiene knowledge in secondary students in Lublin.

Material and methods. The study included 682 students, aged 16-18, attending secondary schools in Lublin. The patients answered questions regarding reasons for their visit to the dental practice, and for not seeing a dental practitioner on a regular basis. They also covered selected hygiene practices.

Results. The results showed that in the surveyed group 17% of students went to see the dentist less often than once a year; 19% changed their toothbrushes not more often than once every 3 months and 38% of the students were afraid of the dentist. One or more teeth were lost by 14% of the surveyed students because of dental caries. Surprisingly every fifth surveyed student did not know how many teeth an adult should have.

Conclusions. On the basis of the results of the conducted study, it has been concluded that the secondary school students have a low level of oral hygiene knowledge, which is reflected in an insufficient motivation to appropriately follow daily preventive dentistry and avoiding seeing the dentist for check-ups.

Słowa kluczowe: profilaktyka stomatologiczna, higiena jamy ustnej, młodzież, Lublin.

Keywords: dental prophylaxis, oral hygiene, young people, Lublin.

INTRODUCTION

Nowadays in Poland more and more pressure is being put on young people to achieve very good results in learning, be interested in sports and improve their foreign language skills. Apart from taking care of body fitness, it is one's appearance and the aesthetics of one's teeth that have become crucial too. However, the results of the survey related to the frequency of dental caries and paradontopathy among the Polish youth are far from meeting the guidelines set by the World Health Organization and are decisively worse than in the countries of Western Europe [1].

It is individual and group health education as well as dental prophylaxis which are the most important methods of fighting tooth decay disease and paradontopathy [2]. Failing to perform the basic procedures related to oral hygiene or performing them incorrectly in consequence results in losing one's teeth or even, in extreme cases, to complete edentualism [3].

Most studies related to the state of dental hygiene carried out among young people who attend schools, accounted for the frequency of dental caries and tooth treatment indexes, but did not take into account early pathological changes within the paradontium. According to periodontic guidelines of the WHO for 2010, the allowed result for 15-year-olds was not more than one sextant of CPITN 1 or 2 [4].

AIM

The purpose of the study was to evaluate the knowledge of secondary school students from Lublin on dental prophylaxis.

MATERIAL AND METHODS

Questionnaires comprising 26 questions related to the basic rules of oral hygiene were used as a research tool. The survey was carried out among 682 secondary school students aged 16-18, i.e. 6.14% of all secondary school students in Lublin. The respondents included 65.59% of girls and 34.41% of boys. Statistical analysis of the results was carried out with the Statistica software, test Chi². The statistically valid relationship between the analyzed parameters was measured at the validity level of p<0.05.

RESULTS

The largest group of the respondents, i.e. 62%, reported to a dentist for prophylactic check-ups, 12% visited a dental practitioner in order to treat caries cavities, whereas as many as 26% saw a dentist only when a toothache made them do it (Figure 1).

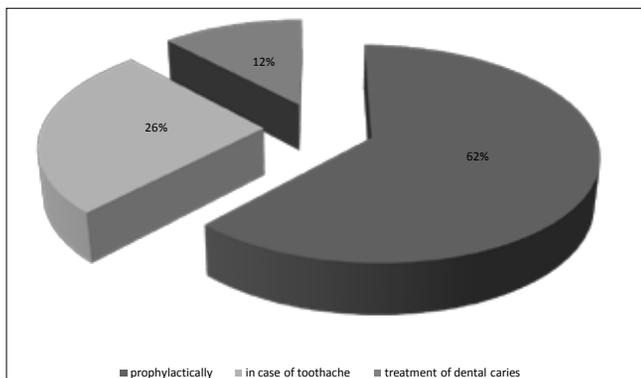


FIGURE 1. Reasons for seeing a dentist.

What could be observed within the polled group was the relationship between the decreasing number of teeth with root canal treatment and the increasing frequency of brushing teeth. Canal root treatment was experienced by 33.33% of students who brushed their teeth less frequently than once a day, compared to 28.81% of all the students who brushed their teeth once a day, 23.04% of those who brushed their teeth twice a day, and 22.16% of all the respondents who brushed their teeth more frequently than twice a day. Statistical analysis confirmed a highly valid relationship (p=0.0105) between the frequency of brushing teeth and the number of root canal treated teeth (Figure 2).

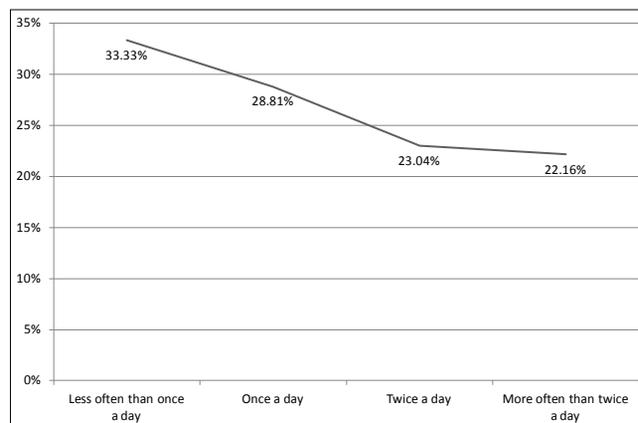


FIGURE 2. The influence of brushing teeth on the performed root canal treatment (p=0.0105).

One secondary school student in every four reported gum bleeding while brushing their teeth (Figure 3).

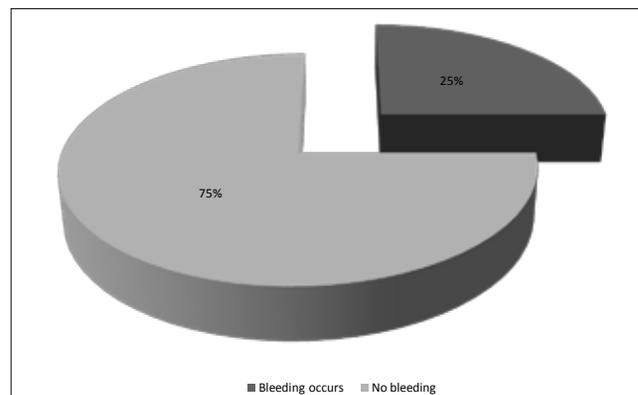


FIGURE 3. Occurrence of gum bleeding while brushing teeth.

Considering the group of the respondents who declared gum bleeding, in majority of cases, i.e. 38.47%, the respondents did not brush their teeth before going to sleep, whereas the percentage of students who reported gum bleeding and brushed their teeth before going to sleep was lower and amounted to 22.58%. Considering the respondents who did not report gum bleeding, the most numerous group, i.e. 77.42%, included people who regularly remember about brushing their teeth before going to sleep, whereas a smaller group, i.e. 61.54% consisted of the respondents who failed to brush their teeth regularly. Statistical analysis confirmed a highly valid relationship between gum bleeding among students who failed to brush their teeth before going to sleep and those who declared brushing their teeth before going to sleep (p=0.000046) (Figure 4).

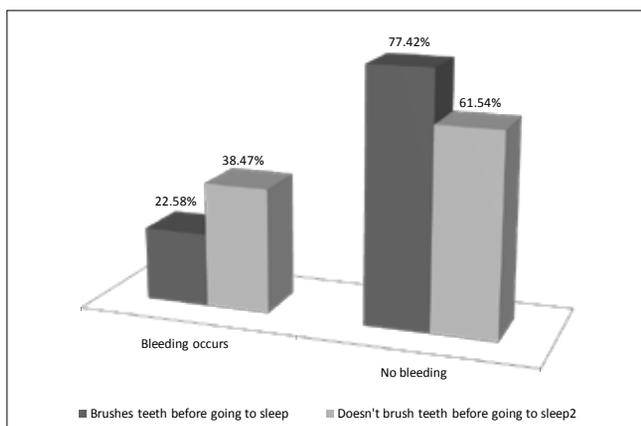


FIGURE 4. Influence of brushing teeth before going to sleep on the gum bleeding while brushing teeth (p=0.00046).

As for the question regarding the frequency of replacing a toothbrush, the most numerous group, i.e. 51.54% included people who replaced their toothbrush every three months, compared to 29.81% of the respondents who replaced their toothbrush every month and 18.65% of the respondents who did that less frequently than every three months (Figure 5).

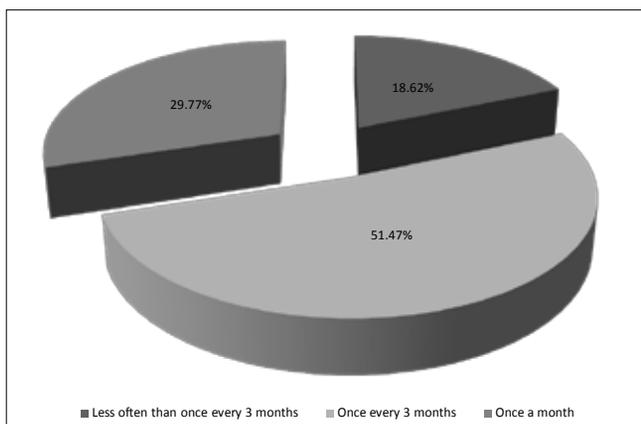


FIGURE 5. Frequency of replacing toothbrush.

Considering additional oral hygiene equipment used by the polled secondary school students, it was the mouthwash which was most popular, with 53.58% of the respondents who said they used it. Dental floss was used by 41.24% of the respondents, compared to 4.24 % of the respondents who used an interdental brush, and 0.94 % who used a dental water flosser (Figure 6).

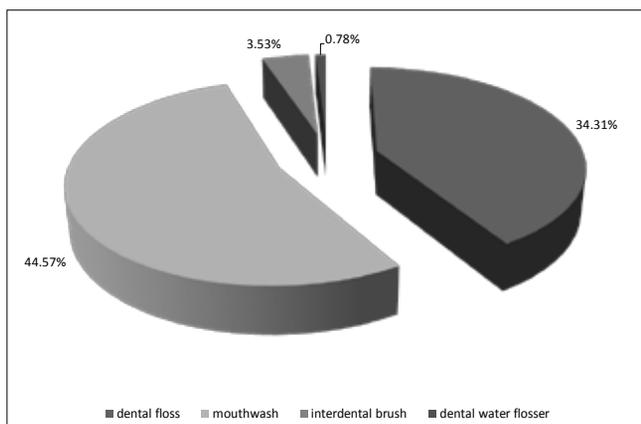


FIGURE 6. Various types of additional oral hygiene equipment used by students.

Within the group of students who brushed their teeth before going to sleep, when the respondents were given a choice between endodontic treatment and tooth extraction, decisive majority (90.15%) chose the treatment, whereas 9.86% would opt for extraction. Among the students who did not brush their teeth before going to sleep, 73.08% of the respondents chose the treatment, whereas 26.92% opted for extraction. Statistical analysis confirmed a highly valid relationship between brushing teeth regularly in the evening and the type of choice between treatment of a tooth and its extraction (p=0.0012) (Figure 7).

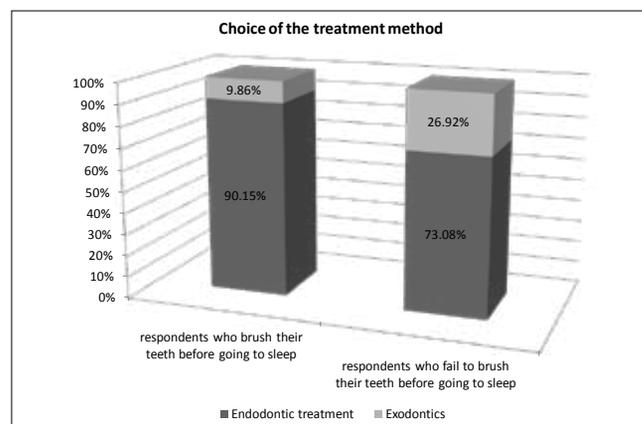


FIGURE 7. The relationship between observing dental prophylaxis rules and the choice of the treatment type (p=0.0012).

One in every four respondents declared that he/she had undergone a plaque removal procedure (Figure 8).

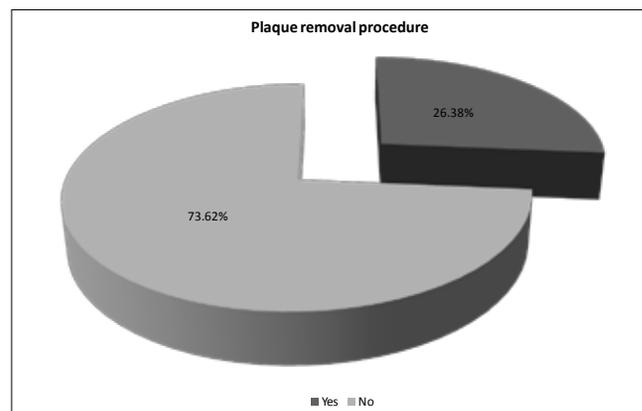


FIGURE 8. Percentage of people who have undergone a plaque removal procedure.

According to the results of the survey, the largest group, i.e. 49% were young people who had 4-6 fillings, compared to 15% of the respondents with more than 7 fillings and 36% of students with 0-3 fillings. Endodontic treatment of one or more teeth was reported by 23% of the polled secondary school students. When questioned if they felt fear before visiting a dentist, 38.12% of the respondents said yes (Figure 9).

One of the questions in the questionnaire was related to the secondary school students' awareness of the need to keep a complete set of teeth. The question read "Would you prefer to pay 100 PLN and have your tooth extracted or spend 300 PLN on treating it?" was answered by 11% of the respondents that they would prefer to have their tooth extracted, whereas 89% would rather undergo endodontic treatment (Figure 10).

DISCUSSION

While talking about oral health in Poland, the main focus is put mainly on dental caries. In dental practice gingivitis as well as periodontitis are often omitted in clinical studies and are very rarely mentioned in epidemiologic studies. In the study by Chłapowska carried out among 18-year-olds from the Poznańskie Province, only 15% of the respondents had healthy parodontium [5]. In our study carried out among secondary school students, one in every four respondents reported gum bleeding while brushing their teeth, which resulted from improper brushing and the ongoing inflammation of the gingival margin. Similarly to preventing dental caries, in case of parodontopathy it is the periodical appointments with a dentist, instructions related to oral hygiene, as well as activities aimed at creating motivation to perform the basic hygienic procedures systematically which are of key importance. In our study, the largest group of secondary school students (62%) were the respondents who visited a dentist for prophylactic check-ups. However, in the survey carried out among Poles by Krufczykin the years 2007-2008, this percentage was significantly lower and amounted to 37% [6]. The said study was carried out among 30,000 people aged 14-60, among whom 34% of the respondents reported to a dentist in order to be treated for dental caries, whereas in our study this result was significantly lower and amounted to 12%. In the study by Krufczyk 32% of the respondents were made to consult a dentist because of the toothache, whereas in our study

26% of secondary school students declared toothache as the reason for a visit to a dentist. In the study carried out by Kubić-Feliks et al. among pupils from the Lubelskie Province aged 10-12, the percentage of children who consulted a dentist due to a toothache was higher than in our study on secondary school students and amounted to 34% [7]. In the study by Bocianowski et al. carried out between 2005-2007 among students of the Poznań University of Life Sciences, 19% of the respondents declared that it was the toothache that eventually made them visit a dental office [8]. A large group, i.e. 50% of our respondents replaced their toothbrush relatively seldom, i.e. once every three months; one respondent in every three replaced their toothbrush every month, whereas 19% of the respondents did it less frequently than once every three months. In the study carried out by Strychacz et al. among the secondary school final year students from Lublin in 2001, 30.77% of the respondents replaced their toothbrush less frequently than once every three months [9]. While comparing the study carried out by Strycharzin 2001 and the study carried out by us in 2010 it can be observed that after 9 years the group of young people who replaced their toothbrush less frequently than once every three months decreased from 30.77% to 19%. In the study carried out by Bachanek et al. among 15-year-olds from Lublin in 2003, 62% of the respondents declared that they replaced their toothbrush every three months [10]. Among the young people polled by us, 25% of them reported gum bleeding while brushing their teeth, whereas in the study carried out by Bocianowski on the group of 628 university students, this percentage was significantly lower, i.e. 13.85% [8]. In the aforementioned study by Bocianowski, a large group, i.e. 24.84% of the respondents, were the people who had lost at least one permanent tooth, whereas in our study the percentage of people who admitted they did not have a full set of teeth was significantly lower, i.e. 14%. One of the questions in our questionnaire was related to the alternative between significantly more expensive treatment of a tooth and a cheaper extraction. The extraction of the tooth instead of the treatment was chosen by 11% of the polled students, which may be attributed to financial reasons. In the study by BorysiewiczLewicka, carried out among Poles, a group of 19.37% of the respondents did not attend dental check-ups regularly due to financial reasons [11]. According to the study carried out by Samorodnitzky in 2005, 6-15% in the world feared dental treatment [12]. In the study carried out by Kaczmarek among 18-year-olds from Wrocław in 2008 as many as 66% of the students admitted they felt fear before visiting a dentist [13]. In our study the fear before visiting a dental office was declared by a significantly smaller group of the respondents, i.e. by 38% of secondary school students.

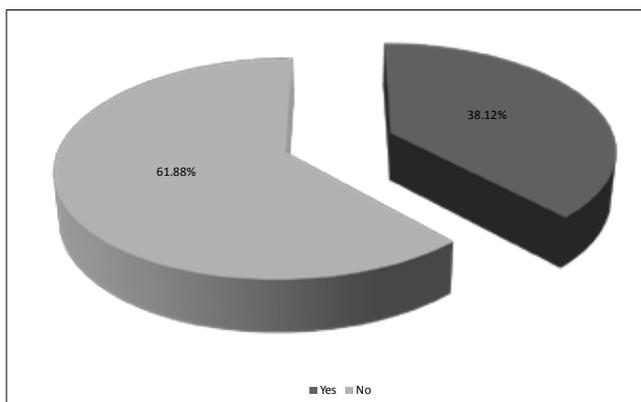


FIGURE 9. Percentage of people who experience fear before visiting a dental office.

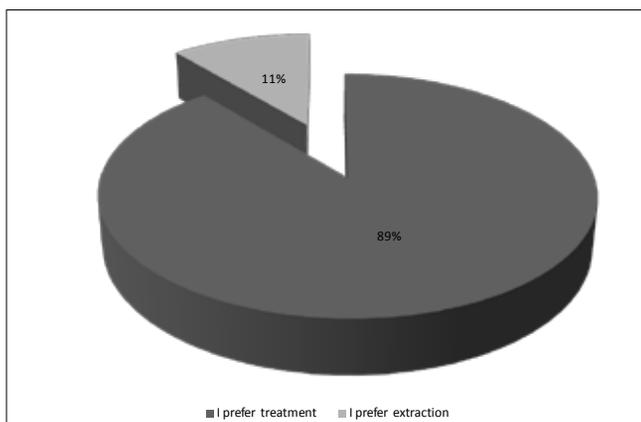


FIGURE 10. Answers to the question: "Would you like to pay 100 PLN and have your tooth extracted or spend 300 PLN on treating it?"

CONCLUSION

1. The level of knowledge related to oral health among secondary school students from Lublin is deemed insufficient.
2. Gum bleeding while brushing teeth is a symptom of gingivitis resulting from incorrect technique of brushing teeth and the lack of regularity of brushing teeth.
3. The number of root canal treatments among secondary school students is indicative of the lack of regular visits to a dental office.
4. The frequency of brushing one's teeth has a crucial influence on the advancement of dental caries processes in teeth which finally undergo endodontic treatment.

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