



The tendency for dental treatment — preliminary report

Skłonność do leczenia stomatologicznego — doniesienie wstępne

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ABSTRACT

The regularity of visits to the dentist is one of the key elements in the broadly understood prevention of oral health. 18% of the surveyed group of 163 residents of Poznan and the surrounding area did not take any visits to the dentist during the past 12 months. Studies have shown that with the increase in the level of education reduces the share of people who quit their visits to the dentist at least once a year. The residents of Poznan and the surrounding area much more care about the regularity of visits to the dentist of their children, rather than on his own. Among the reasons for not treating are listed a lack of cash, long waiting times, the fear and waiting for disappearance of disease's symptoms, which is also confirmed by the results of surveys other authors.

Keywords: dental check-up visits, dental treatment need, frequency of dental visits, dental care, dental fear, dental visiting habits, health education.

STRESZCZENIE

Regularność wizyt w gabinecie stomatologicznym jest jednym z kluczowych elementów w szeroko rozumianej profilaktyce zdrowia jamy ustnej. W grupie 163 mieszkańców Poznania i okolic, w której przeprowadzono badanie ankietowe, 18% respondentów nie odbyło żadnej wizyty u lekarza stomatologa w okresie minionych 12 miesięcy. Badania wykazały, iż wraz ze wzrostem poziomu wykształcenia zmniejsza się udział osób rezygnujących z wizyt u lekarza dentyisty przynajmniej raz w roku. Okazuje się, że mieszkańcy Poznania i okolic zdecydowanie bardziej dbają o regularność wizyt w gabinecie stomatologicznym swoich dzieci, aniżeli o swoją. Wśród przyczyn niepodejmowania leczenia wskazuje się brak środków pieniężnych, długi czas oczekiwania na wizytę, strach oraz oczekiwania na ustąpienie objawów choroby, co potwierdzają również wyniki badań innych autorów.

Słowa kluczowe: badanie ankietowe, częstość wizyt stomatologicznych, przyczyny podejmowania leczenia stomatologicznego, stomatologiczne potrzeby lecznicze.

Introduction

The problem of the lack of visits' regularity to the dentist's office increasingly becomes the object of polish scientists' analysis, especially because it concerns a significant part of the population. Polish and foreign research shows the scale of the problem in the population of Polish. Recorded in Poland a high share of tooth decay among children is the result of many factors, including among others, the lack of: regular check-ups, regular hygienic treatments, prevention and early treatment [Mendera-Idol 2016]. Understanding the causes of irregular dental care and taking action to prevent this phenomenon is a key to implement some improving the current situation procedures.

Aim

The main aim of the study is to evaluate the lack of susceptibility to dental treatment based on independently conducted surveys among respondents from Wielkopolska — one of the most industrialized regions in Poland. The study verifies the reasons for the low frequency of visits to the dentist in comparison with other research centers.

Material and Methods

The survey was carried out in 2016 on 164 residents of the Greater Poland Voivodeship (Poznan and the surrounding area) among the inhabitants of the region's capital city, as well as villages, small towns and big cities of the Greater Poland Voivodeship

with relatively equal parity of men and women (94 women and 69 men) (**Figure 1**). The study was carried out with the use of a proprietary questionnaire divided into 3 parts. The first one asked for personal details such as sex, age, place of residence and education. In the second one, the interviewees chose the type of dental services they used in the previous year 2015. The third group of the questions asked the interviewees for the frequency of their visits to the dentist's office and to give reasons for the lack of dental treatment and the reasons for the choice of dental care. The data was compiled using techniques of descriptive statistics, such as tabular description, graphic presentation of data and scheduling layout standards.

Results

In order to verify the problem of regularity of visits to the dentist, respondents were asked to answer the question, when was the last time they held a visit to the dentist? The answers were included in 4 intervals (less than 3 months, 3–6 months, 7–12 months, over 12 months). Respectively, 38% of people visited a dentist no later than 3 months ago,

27% of respondents declared the period from 3 to 6 months and 17% of respondents chose the range from 7 to 12 months. About 18% of interviewees (30 people) decided not even to routine checkup of the oral cavity (**Figure 2**).

The survey made it possible to analyze the relationship between the education's level of the respondents and the frequency of their visits to the dentist. According to the gathered material it can be observed that with the increasing level of education reduces the share of people who quit their visits to the dentist at least once a year. In the surveyed group, 40% of people with primary education have not visited to the dentist since one year. In case of the respondents with secondary education it is 21% (12 people) and with the higher education 14% (8 people). Among the surveyed children and youth (opinion of parents/legal guardians), this share is much lower. Only 6% of children with both higher education parents did not visit a dentist for at least 12 months. In the group of children and youth with at least one parent with a secondary education this share is 10% and 13% for at least one parent with a higher education (**Figures 3, 4**).



Figure 1. Percentage of surveyed women and men with regard to place of residence

Rycina 1. Procentowy udział przebadanych kobiet i mężczyzn z uwzględnieniem miejsca zamieszkania respondenta

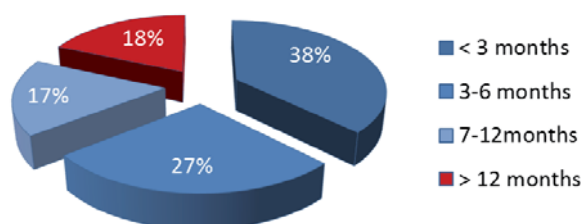


Figure 2. The date of the last visit do the dentist's office

Rycina 2. Upływ czasu od ostatniej wizyty w gabinecie stomatologicznym w opinii respondentów

The analysis of the results of the study indicate that the most frequent cause of no use the dental service over the past 12 months among respondents is "waiting for the disappearance of symptoms" — 27% of the responses. In the second place (18%) the reason was "too long waiting time for an appointment in the socialized (public) dental units". "Lack of funds for private dental care" as well as "lack of

time for treatment" in 7% of responses determined the decision to desist from visits to the dentist's office. Nearly one-third of responses (32%) were "other" reasons that respondents did not specify.

Discussion

The needs of dental treatment the polish society are high and largely unmet [1]. Although it can be

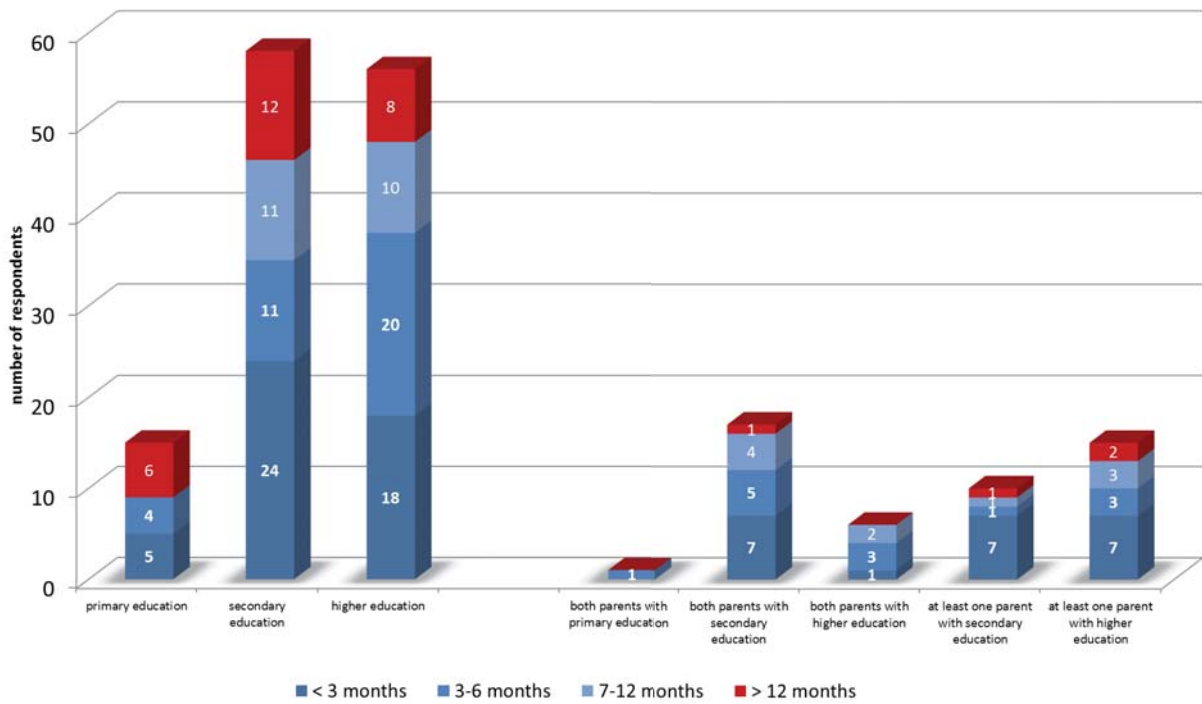


Figure 3. The relationship between the education level of the respondent and the date of the last visit to the dentist
 Rycina 3. Zależność między wykształceniem respondenta a terminem ostatniej wizyty u stomatologa

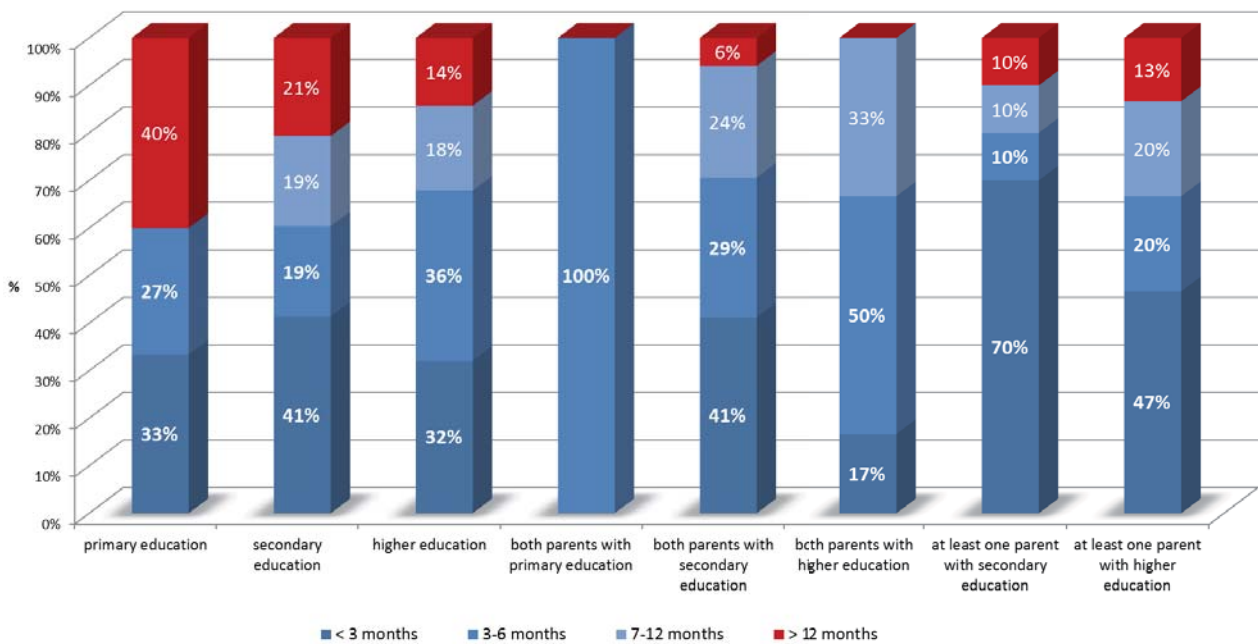


Figure 4. The relationship between the education level of the respondent and the date of the last visit to the dentist
 Rycina 4. Zależność między wykształceniem respondenta a terminem ostatniej wizyty u stomatologa — udział procentowy

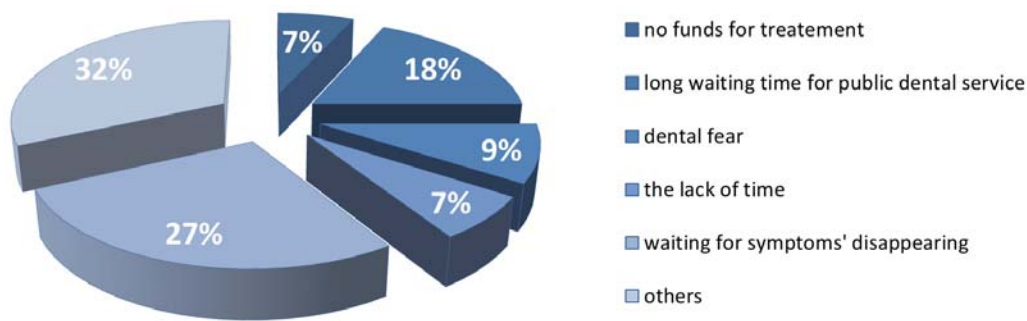


Figure 5. The reason for the lack of dental treatment in the period of last 12 months

Rycina 5. Przyczyny nieskorzystania przez respondentów z usług stomatologicznych w ciągu minionych 12 miesięcy



Figure 6. Surveyed regions on the map of Poland

Rycina 6. Obszary Polski wykorzystane do analizy problemu

noticed an improvement in the approach of patients to prevention, the current situation leaves much to be desired. This is confirmed by the results of our survey in the Greater Poland Voivodeship (Wielkopolska) and analysis of the problem in the Lesser Poland Voivodeship (Małopolska), the West Pomerania Voivodeship (Zachodniopomorskie) and Masovia Voivodeship (Mazowsze) prepared by other authors (Figure 6).

The epidemiological data gathered in a study conducted in 4 of Krakow (capital city of the Lesser Poland Voivodeship) dental practices by the Jagiellonian University Collegium Medicum in Krakow shows that the highest percentage of patients (50.7%) visits to the dentist's office monthly or even often. In the years 2013–2014 the percentage was slightly higher than in 2005–2006. Also "one-time visits" are more frequent among the patients (24.6%). The percentage of such patients was 18.5% in 2005–2006 and up to 30.5% in 2013–2014. There was relatively the least patients who visit to

the dentist's office less than once a year (1.4%). Studies have shown a decrease in the frequency of visits over the years. On the one hand the largest percentage of patients visit to the dentist regular and there was observed even some growth in this issue but among patients visiting less frequently than once a month there is noticed decreased frequency of visits. The percentage of patients reporting only single visits increased [2], it is considered that its region has shown a more regular visits to the dentists than we analyzed the region of Wielkopolska.

The percentage of patients visit to the dentists' office one-time has increased as well [2]. It is observed that patients from the Lesser Poland Voivodeship (Małopolska) are more regular in visits to the dentists than analyzed region of the Greater Poland (Wielkopolska).

For comparison it is worth also to refer to the results of surveys titled "Habits of hygiene and oral health among Europeans" made in June 2012 by

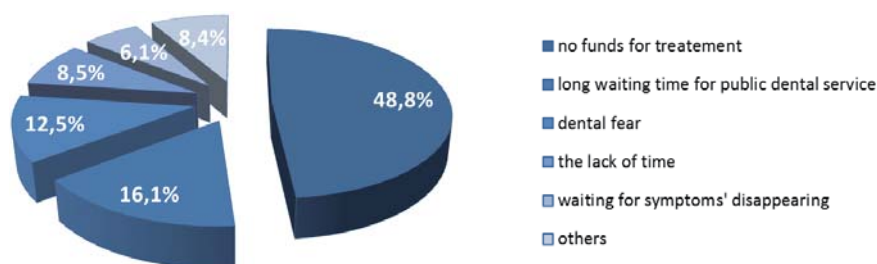


Figure 7. The reason for the lack of dental treatment in 2013

Rycina 7. Przyczyny niekorzystania z usług stomatologicznych w 2013 r.

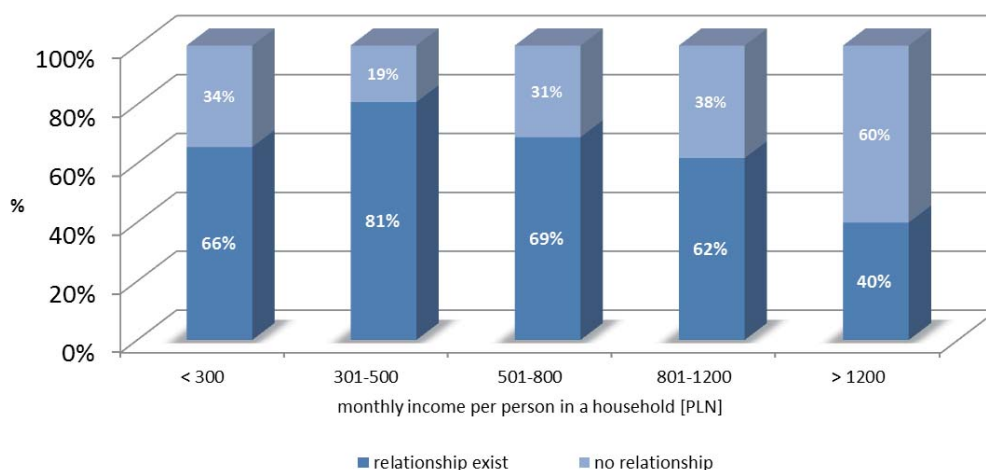


Figure 8. The relation between the amount of income and the frequency of visit to the dentist

Rycina 8. Wpływ dochodów na częstość wizyt u lekarza dentysty



Figure 9. Abandon of dental treatment because of too high price for service

Rycina 9. Rezygnacja z zabiegów nier refundowanych przez NFZ ze względu na ich zbyt wysoką cenę

a research group Ipsos on a representative group of 3504 inhabitants of the seven European countries (Germany, France, Italy, Spain, United Kingdom, Ireland and Poland). It shows that the majority of Europeans visits the dentist regularly (32% every year, 29% twice a year), mostly Germans (44%) and British (46%), but as much as 31% of Poles visit to the dentist once every two years or less. Only 4 of 10 Poles visit to the dentist two times a year. The goal of the

visit are not regular controls (40% vs. 58% average value) but more often treatment, such as filling cavities (56% vs. 29% average value) and the extraction of the tooth (20% vs. 12%). Furthermore the Poles more strictly follow the rules of oral care with regard to their children. As many as 75% of them takes regularly children to the dentist for check-ups. The dental health of their children take care the most Germans (85%), less frequently the Irish (56%)

[3]. A similar phenomenon is observed in our study. Inhabitants of the Greater Poland more often take care of the regularity of visits of their children, rather than on his own. This is also confirmed by the study from 2013 conducted by the Medical University of Warsaw on a group of 55 parents and their preschool children (3–6 years) from the city of Warsaw. Among the surveyed children up to 84% were on an adaptive visit [4]. The emphasizing value of the first child visit to the dentist more and more gains in the importance. It provides the basis for building the right child's attitude to dental treatment [5]. Reluctance to visits to the dentist confirms data from the World Dental Federation. They show that the average Pole goes to the dentist 0.8 times during the year when the European average is higher more than a half and it means 1.3 times per year [6]. The scientific community gives some the most important reasons of the lack of dental visits' regularity. These include such factors as fear of pain, lack of time and needs money for treatment [2].

Eurobarometer survey in 2009 conducted on a group of 27 member EU countries and the 3 countries applying for membership proofs that for 33% respondents the reason for avoiding the dentist was a disregard for the problems of the oral health. For 16% of them the reason lies in the lack of teeth or having a synthetic supplements teeth — dentures. 15% of respondents indicated a high costs of treatment and 10% dental fear [7].

The survey titled "Health care in households in 2013" prepared by The Polish Central Statistical Office shows that for nearly half (48.8%) of the surveyed Poles the financial aspect is the most important one. Equally important have proved to be such issues as "a long time to wait for a visit" and "fear" — accordingly 16.1% and 12.5% (**Figure 7**).

Gmyrek-Marciniak clearly states that among the main reasons for not affecting the dental treatment is a difficult economic situation of potential patients [8, 9]. So often raised problem of expensive dental services was analyzed by the University of Szczecin. It turned out that in conducted in the Greater Poland survey the level of income per person in the household has a big influence on decisions to undertake dental treatment. It seems to be a particular problem for people with incomes 301–500 PLN per month for 1 family member — approximately 100 Euro. As many as 81% respondents declare that income determinate their frequency of visits to the dentist. Although with the increase of income, in the respondents' opinion, the situation improves, but still remains at a relatively high level of around 60%, except of the group with an income above 1200 PLN

— about 300 Euro per person per month, of which up to 40% of people amount of income affects the regularity of visits to the dentist (**Figure 8**).

To investigate the problem of abandonment of full-paid dental services, respondents were asked the question: "Have ever happened to you to give up with proposed by the dentist full-paid service due to too high price?". The results of the survey (presented in the chart below with the division of the size of income per month for one person in the household) proved that 50% of patients with incomes up to 300 PLN — about 100 EUR, 43% with income 301–500 PLN, 46% with income 501–800 PLN, 33% of the income 801–1200 PLN and 18% with incomes above 1200 PLN have resigned from the treatment. In each range about 30–40% of people do not recall such a situation (**Figure 9**).

Studies show that for the average European high cost of treatment is an important reason to avoid the dentist (40%). A visit to the dentist's office, because of the high cost, the most commonly cancel the Irish (51%), Spanish (50%) and Poles (49%), while the least likely to act in this way are French (24%) and Germans (25%) [10].

Among the reasons of the lack of regularity indicates the already mentioned dental fear. According to the surveys, every third Europeans agrees that the fear determinates their decisions of avoiding subsequent visits. In this regard, the leaders are the Poles — the most of all Europeans are afraid of going to the dentist (39%). It concerns less inhabitants of the United Kingdom (25%) and France (26%) [3].

Whatever is the reason of the lack of dentist visits' regularity and regular treatment the scale of the problem in Poland seems to be enormous and should be made every effort to change the current status. The role of parents in this problem seems to be significantly valuable. They form habits of oral hygiene of their children. No less important duty have dentists. They can dispel the myth of an unpleasant dentists' visits by their attitude and way of treatment using the newest available medications.

The authorities and research centers should also give an input is the issue by organizing campaigns and social programs to protect the health of the oral cavity [12]. Health education of patients is one of the most important elements that determine their health in the future.

Well-managed health education should profit with beneficial health effects of a patient through early preventive activities or early treatment [13, 14]. The effectiveness of adult education depends on the medical staff, proper doctor-patient relationship and the way of the information's transmis-

sion. However there is a difference in the education of children and youth because in this case the enormous influence have parents/legal guardians. They decide about the eating habits of their children, they decide about hygienic habits of their children, they bring their children to the dentist (if they are not painful situations). What children learn in childhood will have a significant impact on their adult life, will determine their health awareness. That is why the health education of adults — the prospective parents is very important, of course not forgetting the children's education. There is a need to raise society awareness of advantages of the regular visits to the dentist's office and oral health monitoring. Thereby it is possible to detect abnormalities in the mouth and educate people that periodontal diseases and mucous affect the whole body especially cardiovascular system. There is essential to remind about equal role of milk and permanent teeth and the fact that milk teeth diseases can strongly influence on the permanent teeth's health.

Dental fear largely depends on the knowledge, experience and skills in establishing contact with the patients by dentists, the approach to the patients, dedicated time for listening to them and the way of providing information about their health.

Conclusion

1. With the increasing level of education reduces the share of people who quit their visits to the dentist at least once a year
2. Residents of Poznan and the surrounding area much more care about the regularity of visits to the dentist of their children, rather than on their own.
3. The scientific community gives some the most important reasons of the lack of dental visits' regularity. These include such factors as lack of funds for treatment, long waiting time for public service, dental fear and waiting for symptoms' disappearing.
4. The majority of Europeans visits the dentist regularly (32% every year, 29% twice a year), mostly Germans (44%) and British (46%), but as much as 31% of Poles visit to the dentist once every two years or less.

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