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Economic and social factors of the popularity of dentourism in the opinion of respondents

Abstract: The aim of the article was to present factors that influence the popularity of dentourism. In the article, the author focused on the analysis of spatial and social aspects of dental tourism. The study describes the concept of 'dentourism', including factors supporting it as well as limitations. Profile of the dental tourist is also presented based on entrepreneurs' offers in selected countries. Primary and secondary data were used to achieve the goal. Also, empirical studies were conducted with the use of a diagnostic survey method and its technique – a questionnaire. The research was carried out in January 2018. It was conducted on a sample of American citizens (50 residents of New York) and Poland (50 residents of Warsaw). The research shows that the number of foreign guests who visit Polish holiday and ski resorts during the winter is increasing year by year, not only for the purpose of tourism, but also for the sake of making savings in the field of dental treatment.

Keywords: 'dentourism', dental tourism, tourist trips, travels

1. Introduction

Tourism is one of the fast developing businesses in Europe as well as throughout the world. In recent years, the number of foreign journeys in the world has been increasing at the rate of 3 to 4% annually. The data indicate that the number of tourist journeys exceeded one billion and it is estimated that the number of foreign journeys will exceed 1.8 billion in 2030. According to the European Travel Commission, the demand for international medical tourism, including convalescent tourism, will be growing faster than other types of tourism (Data of the European...). Apart from the forecasts concerning the number of health related journeys (within medical tourism), it is also predicted that there will be an increase in the interest in culinary tourism and travel connected with

the improvement of professional qualifications (Napiórkowska, 2018).

The interest in medical tourism, including dental tourism, is growing really dynamically (Horowitz and Rosenweig, 2007). Dental care is one of the leading medical services for which the insurance cover was withdrawn, and Polish citizens started to finance it on their own. The dental services market in Poland is constantly growing and today it is estimated that dental treatment is worth PLN 8 billion annually. Poles more and more often buy dental services of necessity but also for aesthetic reasons. However, the market is dominated by services consisting in the standard treatment process while in Western European countries most dental services consist in the prevention of oral diseases (Dorocki and Świątek, 2013).

2. Research aim, scope and methods

The aim of the article was to present factors that influence the popularity of dentourism. In the article, the author focused on the analysis

of spatial and social aspects of dental tourism. Primary and secondary data are used to reach that goal. Empirical studies with the use of

a diagnostic survey method and its technique, a questionnaire, were conducted. The research was carried out in January 2018 on the sample

of respondents in the United States (50 residents of New York) and Poland (50 residents of Warsaw).

3. Essence of ‘dentourism’ in literature

The subject matter of the article is ‘dentourism’, i.e. one of the forms of tourism. Different forms of tourism are distinguished in literature, e.g. experiential, sports, business, ethnic, cultural, rural (including agritourism), religious/pilgrimage and medical tourism (Gaworecki, 2010). However, these are not all the types that can be found in literature.

‘Dentourism’ is an element of health tourism, including medical tourism (Crooks et al., 2011). Medical tourism is a combination of tourism and medical treatment (Rasińska and Siwiński, 2014). Fig. 1 presents the position of medical tourism in the structure of tourism.

Medical tourism is dynamically developing in the world (Cormany and Baloglu, 2011). Tourists are also increasingly interested in foreign journeys in order to use dental services. This is called ‘dentourism’ (Bünten, 2006). There is no uniform definition of ‘dentourism’ in literature. In the author’s opinion, ‘dentourism’ is traveling, whose main goal is dental treatment.

The value and importance of Poland as the destination of the so-called medical tourism is growing each year. According to the Polish Association of Medical Tourism, about 300-330

thousand foreigners come to Polish clinics and surgeries every year. The market is worth about PLN 780 million. In comparison, the global market is estimated to be worth \$100 billion. Tourists choose Polish dental clinics because of the high quality of services offered by dentists, but mainly because of much lower prices than in the West (Data of the Polish Association of Medical Tourism).

Foreign patients most often come to Polish dentists but also to plastic surgeons and orthopaedists or labiaplasty specialists (Bookmann and Bookmann, 2007). In general, patients come to Warsaw to undergo serious surgeries and operations.

Polish dentists are especially popular with British, German and Danish citizens. But there are also many Italian, Norwegian and Swedish patients. Occasionally, clients from the United States come to Poland, too. There are over 30,000 private dental clinics and a few thousand private health-care institutions in Poland (Turystyka medyczna na przykładzie gabinetu stomatologicznego).

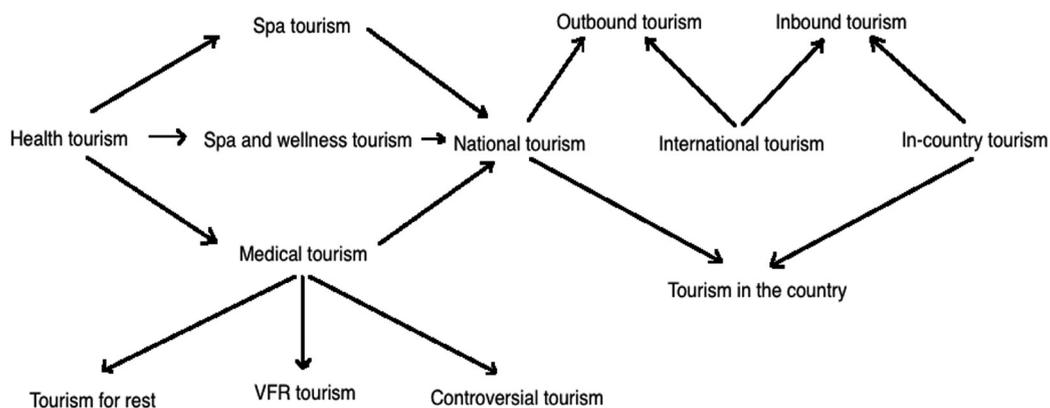


Figure 1. Position of medical tourism in the commonly adopted (according to UNWTO) structure of tourism (Source: Lubowiecki-Vikuk, 2012, modified)

4. Dental services prices in selected countries

Poland is one of the most popular states where 'dentourists' come. Dental treatment is even 60% cheaper than in other European Union countries. At the same time, the quality and

level of services, including the equipment, materials, tools and personnel qualifications, do not differ from what is offered in western countries (Denturyzm, 2012).

Table 1. Prices of selected services in dental clinics in six selected European countries in 2018 (data are provided in Polish zloty calculated in accordance with the Polish National Bank exchange rate on 1st December 2017)

Country	Implant	Tooth whitening	Porcelain crown	Root canal treatment	Consultation
Great Britain	3094	3332	1666	1190	476
Germany	3150	1260	2100	-	-
Poland	2250	850	500	400	100
France	2940	2100	2520	-	252
Denmark	4419	3461	2860	1886	-
Hungary	603	253	268	201	-

Source: the author's own development based on dental clinics' offers in the selected countries

Various research findings show that patients travel to other countries mainly for the purpose of dental treatment (30%) or plastic surgery (34%). Dental tourism is more popular with women than men. More than a half of dental patients (63%) coming from abroad are women and only 37% are men. As many as 63% of the respondents stated that they would buy dental services abroad again.

Most patients who decided to undergo treatment abroad are people in the age of 40-49, followed by people in the age of 50-59. The research indicates that 65% of dental patients were over 50 years old. The most popular dental tourism countries are Hungary, Poland and Turkey (Fig. 2). Patients most often seek implant services, crowns and bridges fixing and root canal treatment. The



Figure 2. European dental tourists' destinations (Source: the author's own development based on Denturyzm bje rekordy popularnosci 2014)

English constitute the best group of clients in Europe because the prices of dental services did not go down even in the period of the economic crisis. Implant services in the United Kingdom are the most expensive ones and the National Health Service does not provide cover for them (Denturyzm *bije rekordy popularnosci*, 2014).

In order to complete treatment, dental patients most often travelled a few times. 32% of the respondents travelled once to undergo dental treatment, 32% travelled twice, 19% travelled three times and 17% four or more times. On

average, patients stayed 15 days away from home. For most of the respondents, the cost was the key factor that made them buy dental treatment abroad. Almost 90% of the respondents (88%) highly evaluated dental services abroad and 65% would travel again without hesitation. Patients were satisfied with: low price, high efficiency of treatment, professional service and good medical care. Scientists are surprised that as many as 51% of the respondents travelled to be treated in countries they had never been to before (Denturyzm *bije rekordy popularnosci* 2014).

5. Simulation of dental services and tourist journeys in selected countries

Thanks to the opportunities provided by the Internet, it was possible to obtain data from randomly selected websites of dental clinics in Poland and other countries. The information obtained made it possible to create a database of prices of particular dental services in selected countries. Table 2 presents prices of dental services in Poland and Great Britain. It can be noticed that the price that a patient must pay for consultation before treatment is four times higher in Great Britain than in Poland. In case of a crown fixing, the price in Great Britain increases by 300% in comparison to Poland. The price of an implant in Great Britain accounts for

137% of the price in Poland. In total, a dental tourist buying the listed services: consultation, two crowns fixing and one implant can save more than half the price that he would have to pay for those services in his country.

Next analysis deals with standard costs of a journey abroad, such as a trip, accommodation, food and the crucial cost of dental services added. Thanks to data accessibility, Table 3 presents an exemplary cost estimation of a British dental tourist's journey to Poland.

Because of cheap airlines operating on the market nowadays, it is now possible to travel abroad much cheaper than on domestic flights.

Table 2. Comparison of dental clinics' offer in Poland and Great Britain (PLN) in 2018

Needs	Poland	Great Britain
Consultation	100	476
2xcrown	1000	3332
1ximplant	2250	3094
TOTAL	3350	6902

Source: the author's own development based on dental clinics' offer in selected countries

Table 3. Estimated cost of a dental tourist's journey to Poland in 2018

Components	Price (PLN)
Cheap flight return ticket	180
Transfer from the airport to the hotel	40
3xovernight stay in a hotel***	730
3xlunch	75
3xdinner	60
Transport	30
TOTAL	1115

Source: the author's own development based on companies' offers available online

Airlines offer cheap flight tickets at different prices, very promotional ones as e.g. Polish Airlines LOT for flights from Warsaw to Berlin for 5 euros, but also at attractive prices as well as close to typical ones offered by other airlines. For the needs of simulation in the present article, the author assumes that a dental tourist is planning a trip long in advance and taking into consideration the biggest possible reduction of costs. Thanks to that he manages to buy tickets for London-Warsaw-London flights for PLN 180, which is quite often offered by airlines. The planes of the airlines considered most often do not land on central airports but those further away from the city centres. That is why the author adds the cost of transfer from the airport to the city centre: PLN 40. Another assumption is that a dental tourist, because of the short intensive stay abroad, will not want to waste his limited time on commuting to the city centre, so he will stay in medium standard three-star hotel located not far away from the centre. The price of accommodation usually includes breakfast so a dental tourist will have to pay extra for lunches: PLN

75 and dinners: PLN 60. There is also the cost of public transport added, e.g. the route from the hotel to the dental clinic. The total cost of a journey (except dental services) is estimated to reach PLN 1,115. The addition of the earlier calculated cost of dental services: PLN 3,350 makes a total of PLN 4,465, which means a dental tourist saves as much as PLN 2,437 in comparison to the cost of the same dental services in Great Britain. The journey to Poland, however, is not just the purchase of dental services cheaper than at home but also sightseeing, getting to know the country providing those services, an opportunity to get to know the culture, cuisine and traditions.

Relatively low prices and high quality of services cause that Poland is second most eagerly visited country for the purpose of dental tourism following Hungary.

Specialist dental services such as implantation, sinus lift or endodontic (canal) treatment are still most popular with foreign patients, but the number of people who take a decision on whitening their teeth or even on simple dental filling in Poland is constantly growing (Denturyzm, 2012).

6. 'Dentourism' in the survey respondents' opinion

The respondents from the United States and Poland took part in the empiric research into the

development of 'dentourism'. Their social and demographic features are presented in Table 4.

Table 4. Social-demographic characteristics of the population examined

	Total			
	USA		POLAND	
	N=50	%	N=50	%
Gender:				
• female	24	48.0	16	32.0
• male	26	52.0	34	68.0
Age:				
• 21-30	7	14.0	21	42.0
• 31-40	6	12.0	15	30.0
• 41-50	7	14.0	4	8.0
• 51-60	5	10.0	4	8.0
• over 60	25	50.0	6	12.0
Education:				
• primary	1	2.0	4	8.0
• basic vocational	28	56.0	5	10.0
• secondary	13	26.0	24	48.0
• higher	8	16.0	17	34.0

Source: the author's own research findings

Over half of the respondents from the United States were male. Most of the Polish respondents were also male (68%). Most of the American respondents were in the age group over 40 (74%). The respondents from Poland over the age of 40 accounted for 28%. Most of

the respondents from the United States had vocational or secondary education. The respondents from Poland were educated people; 82% had higher or secondary education.

Figure 3 presents how the respondents made use of 'dentourism' services.

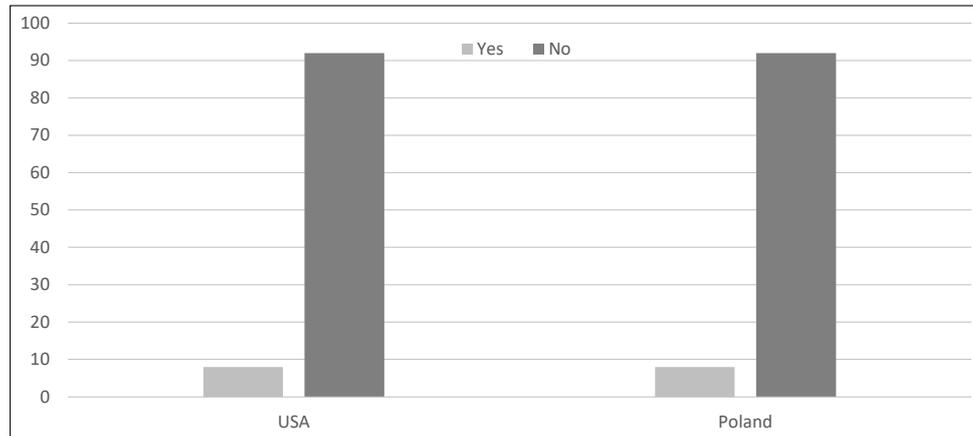


Figure 3. Respondents' use of 'dentourism' services in the past [%] (Source: the author's own research findings)

The majority (92%) of the respondents in the United States and Poland have never been involved in 'dentourism' before. It can be stated that, in their opinion, dental treatment

is very expensive in their country. Figure 4 presents the respondent's opinion on their wish to go abroad in order to buy cheaper dental services.

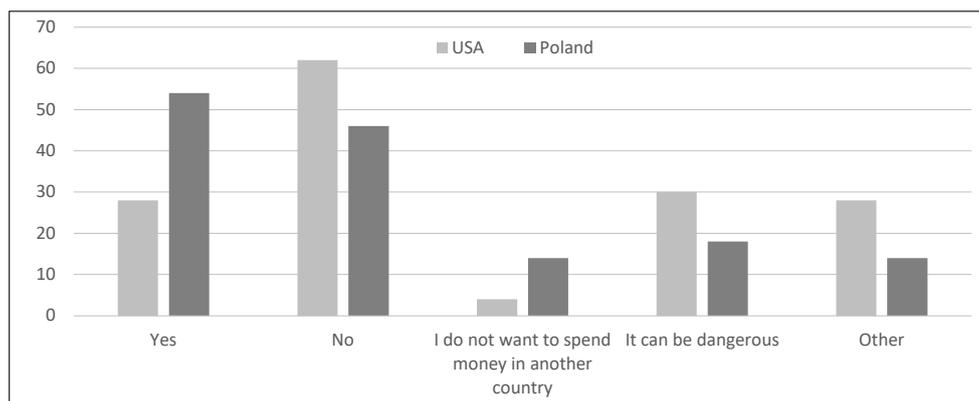


Figure 4. Respondents' opinion concerning their wish to go abroad in order to buy cheaper dental treatment [%] (Source: the author's own research findings)

Opinions on the wish to travel for the purpose of 'dentourism' vary. The Polish respondents are more eager to travel abroad to buy dental services and explore the world. The respondents from the United States believe that such journeys may be dangerous (e.g. because of terrorism). Some respondents do not like

travelling (e.g. flights) and prefer spending their vacation in their country. In their opinion, dental treatment is expensive enough without travelling. Moreover, they trust their dentists. Figure 5 presents opinions on 'dentourism' services abroad and the wish to get to know the attractions of another city.

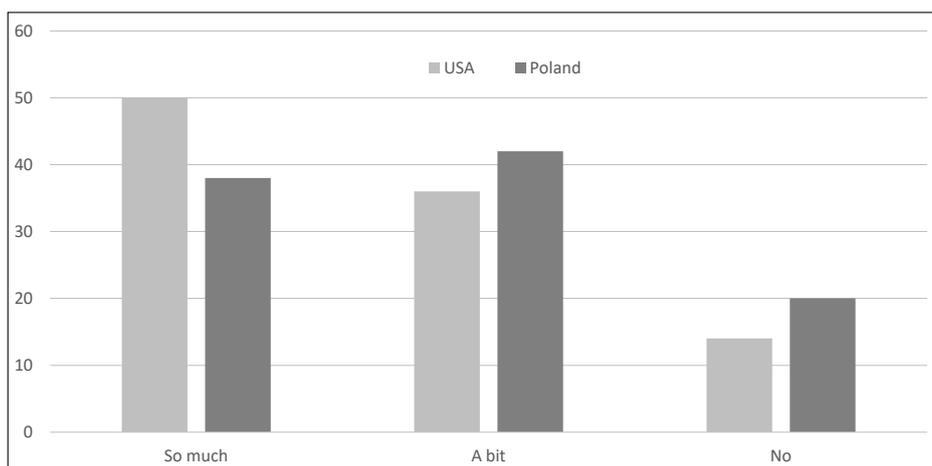


Figure 5. Opinion on 'dentourism' services in another country and the wish to get to know the attractions of another city [%] (Source: the author's own research findings)

The respondents from the United States, in case of being involved in 'dentourism', would like to explore a city visited more than

those from Poland. Figure 6 presents the frequency of tourist travel in order to buy dental services in another country.

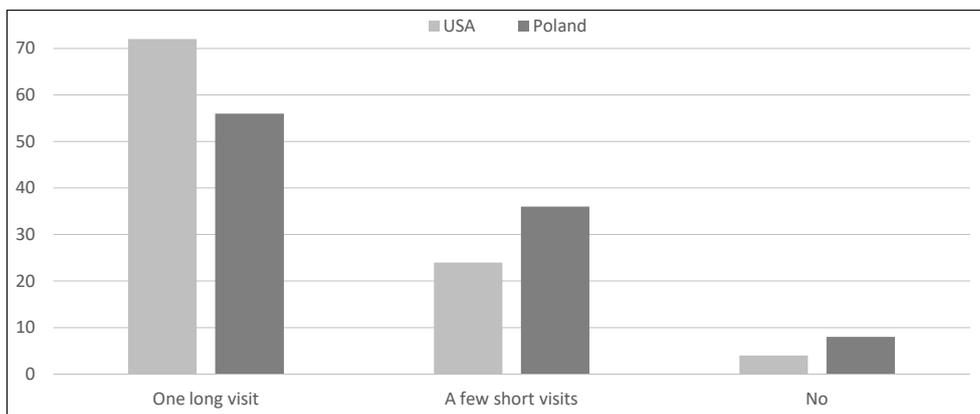


Figure 6. Frequency of tourist travel in order to buy dental services in another country [%] (Source: the author's own research findings)

The respondents from the United States are eager to travel for one longer period rather than go on a few short trips abroad to undergo

dental treatment. The respondents from Poland demonstrate a different attitude. Figure 7 presents a hotel standard in 'dentourism' abroad.

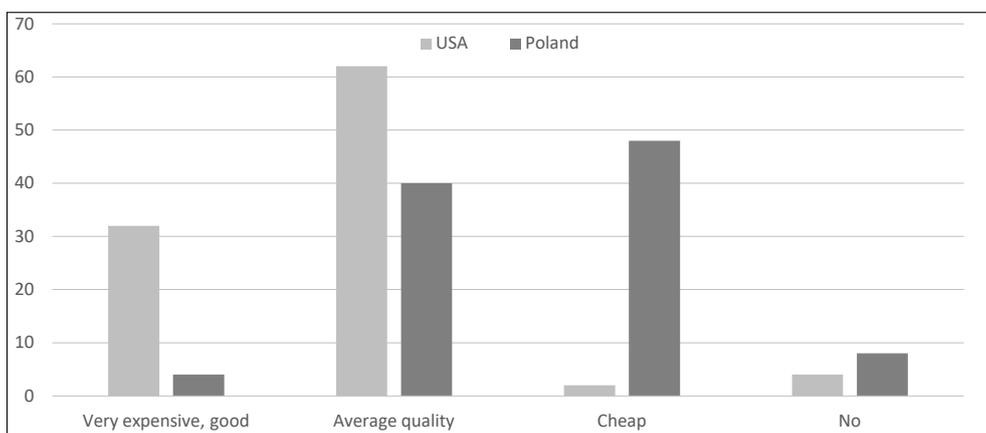


Figure 7. Hotel standard expectations during a 'dentourist' visit to another country [%] (Source: the author's own research findings)

The respondents from the United States more often than Poles are eager to spend money on overnight stay in a higher standard hotel. This may

result from the age of persons involved. Figure 8 presents daily spending that the respondents allow in another country excluding dental services.

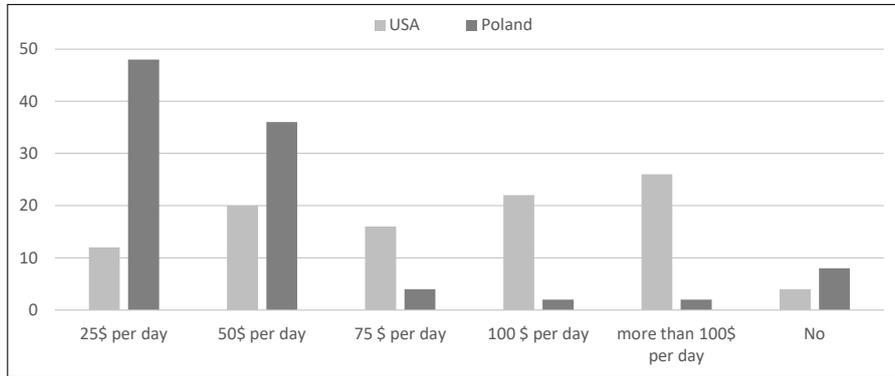


Figure 8. Daily spending that the respondents allow in another country excluding dental services [%] (Source: the author’s own research findings)

The respondents from the United States are more eager to spend more money in another country (excluding dental services) than the Polish respondents. The answers to the ques-

tion were compared to the education level of the American respondents. The detailed results are presented in Fig. 9.

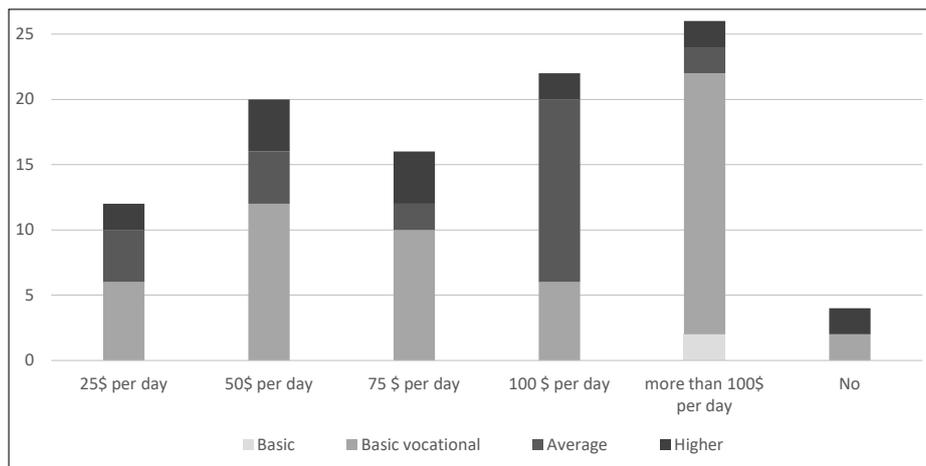


Figure 9. Daily spending in another country allowed by the respondents from the United States, excluding dental services, in comparison to their education level [%] (Source: the author’s own research findings)

It can be noticed that the higher the level of education, the higher amount of money allowed for daily spending abroad. Similarly, older citizens of the United States are ready to spend more money on tourism abroad (Fig. 10).

The respondents from Poland might spend smaller sums on the stay abroad than people from the United States. Most of them declare spending \$25-50 daily in another country. Detailed data are presented in Fig. 11.

It can also be noticed there is a dependence of spending and age. Older people might spend bigger sums. Figure 12 presents the respon-

dents’ opinions on knowing somebody who has been involved in dental tourism.

The majority of the respondents do not know anybody (family or acquaintances) who has bought ‘dentourist’ services. Other respondents gave different answers. Figure 13 presents the respondents’ opinions on their readiness to spend their savings on dental treatment in another country.

The respondents’ opinions about spending their savings on dental services in another country vary. The American respondents more often than Poles are ready to buy ‘dentourist’

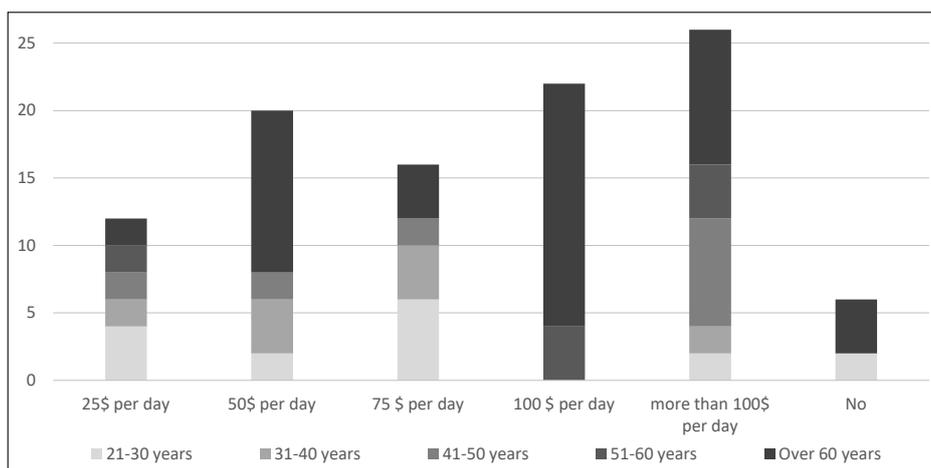


Figure 10. Daily spending in another country allowed by the respondents from the United States, excluding dental services, in comparison to their age [%] (Source: the author’s own research findings)

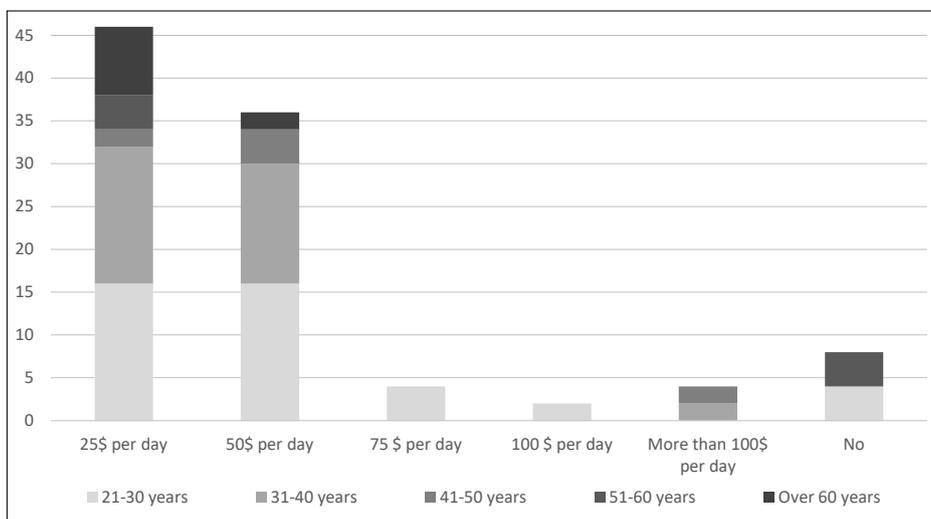


Figure 11. Daily spending in another country declared by the respondents from Poland, excluding dental services, in comparison to their age [%] (Source: the author’s own research findings)

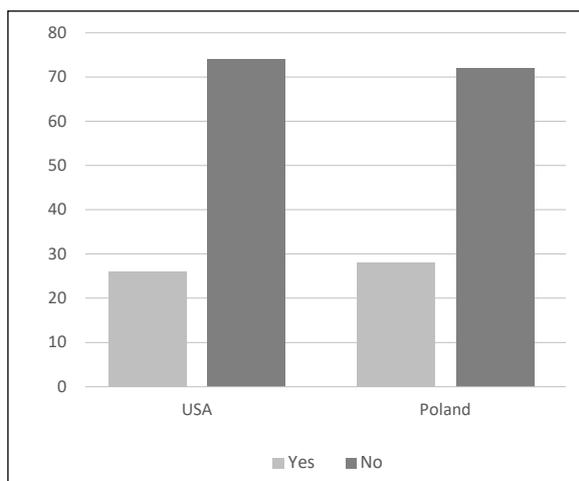


Figure 12. The respondents’ opinions on knowing somebody who has been involved in dental tourism [%] (Source: the author’s own research findings)

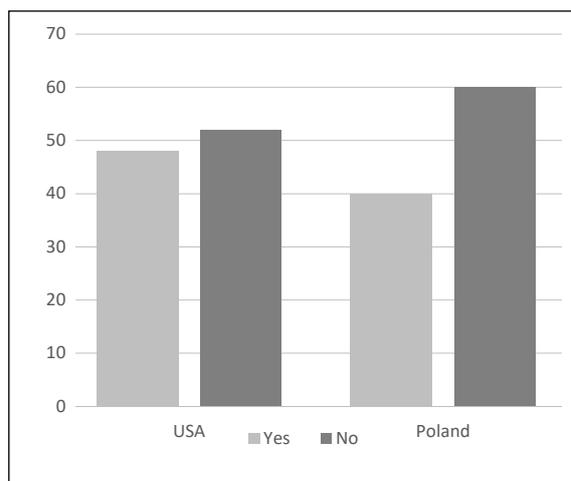


Figure 13. The respondents’ opinion on their readiness to spend their savings on dental treatment in another country (dental tourism) [%] (Source: the author’s own research findings)

services. However, it is worth noticing that the disproportion is not big.

The respondents were asked a question whether they are considering dental treatment abroad and, if so, where. The respondents from

the United States listed the following European countries: Italy (3 indications), Germany (2), Switzerland (2), Poland (2), Great Britain, Spain and France. The countries' location is shown in Fig. 14.



Figure 14. European countries where the respondents from the United States would travel to undertake dental treatment (Source: the author's own development based on research conducted)

Moreover, they also mentioned other countries worth visiting in connection with dental tourism: India (4 indications), Israel (2), Cuba

(2), Japan, Salvador, Costa Rica, Porto Rico, Columbia, Guatemala, New Zealand, Australia and Haiti. Their location is shown in Fig. 15.



Figure 15. Countries chosen by the respondents from the United States as their dental tourism destinations (Source: the author's own development based on research conducted)

The remaining respondents have never thought of this form of treatment or have heard about it for the first time. Moreover, the respondents indicated a wish to fly but not everywhere. They are afraid of terrorist attacks and other risks abroad. Some people do not like travelling, e.g. flights; they would rather spend their vacation in their country. Many people do not know in which countries it would be good to undergo dental treatment. They trust their dentists. It should also be added that the

respondents would not consider travelling abroad because of health conditions and cost. Many respondents have no opinion on a given issue.

On the other hand, the respondents from Poland are mostly interested in dental services in the following European countries: The Czech Republic (6 indications), Ukraine (6), Germany (5), Belarus (4), Hungary (3), Bulgaria (2), Romania (2), Slovakia (2), Lithuania (2) and Italy. Their location is shown in Fig. 16.



Figure 16. European countries indicated by the respondents from Poland as their dental services destinations (Source: the author's own development based on research conducted)

Moreover, the respondents from Poland, in order to undergo dental treatment, would travel to the Philippines (2 indications) and Asia and the Pacific countries (2 indications). Some people have no opinion on a given issue. Like the respondents from the United States,

those from Poland would not travel to some countries, also because of terrorist attacks and other threats. Some of the respondents do not trust their dentists and would like to undergo dental treatment abroad.

7. Conclusions

The article presents the author's own research into the development of dental tourism. One can notice that some of the respondents do not

like travelling (e.g. flights) and these persons are more likely to spend their vacation in their country and buy dental services there. In their

opinion, dental treatment is expensive enough without travelling. These people also trust their dentists.

It can be also noticed that the respondents from the United States are eager to undertake dental treatment in the following European countries: Italy, Germany, Switzerland, Poland, Great Britain, Spain and France. Moreover,

they would also choose other tourist destinations, e.g. India, Israel, Cuba, Japan, Salvador, Costa Rica or Australia.

The respondents from Poland would most willingly buy dental services in the following European countries: The Czech Republic, Ukraine, Germany, Belarus, Hungary, Bulgaria, Romania, Slovakia, Lithuania and Italy.

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