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Central and Eastern Europe as a Medical Tourism Destination: a Case Study of Poland

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ABSTRACT

The medical tourism has been changing the healthcare scene especially in the developing countries which offer a combination of low costs for medical services and experienced medical personnel. It gives them the potential to become a target of choice for medical tourists. Therefore, the aim of the paper is verification of Central and Eastern Europe as a medical tourism destination (MTD). Research were conducted in the light of primary and secondary research. Survey data were collected from 282 German and British tourists, using a self-administered questionnaire. The results indicated that the medical associations are most frequently chosen associations with Poland. The MTD associations are able to develop marketing strategies for medical tourism entities and destination management organisations.

Keywords: Medical associations; Medical services; Medical tourism; Central and Eastern Europe; Poland

Introduction

Medical tourism constitutes a contemporary type of business opportunities (Sandberg, 2017). This market size is not clearly estimated. Youngman (2016) assumes that “global medical tourism is static and shows few signs of growth”, while potential is more varied depending on region, country. Another source reported that is approximately 20–24

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million medical tourists worldwide (Patients Beyond Borders, 2019). The above mentioned source also reveals that the medical tourism market was worth \$65–87.5 billion, and the average cost of stay amounts to \$3410.

Therefore, much research has focused on estimating the real value of medical tourism market, on national level, which is not an easy task due to a commercial service sector (Rab-Przybyłowicz, 2014). At the same time, numerous researchers have addressed the phenomenon of medical tourism destination (MTD) analysing countries as suppliers of medical tourism services. They are mostly Asian countries (e.g. Singapore, India, Thailand, Malaysia, South Korea), the U.S., Mexico, countries of the Middle and South America (Crooks, Turner, Snyder, Johnston, and Kingsbury, 2011; Frederick and Gan, 2015; Johnston et al., 2016; Junio, Kim, and Lee, 2017; Labonté, Runnels, Crooks, Johnston, and Snyder 2017; Moghavvemi et al., 2017). The remaining MTD are still poorly researched, especially Balkan countries (Kiss, 2015), Central and Eastern Europe countries (CEEC), where Poland was considered a leader of the MTD in this part of Europe (Fetscherin and Stephano, 2016), despite the competition (Lubowiecki-Vikuk and Kurkowiak, 2017).

Smith, Puczkó, Michalkó, Kiss and Sziva (2016, p. 88) reported “that the market potential in CEEC is large and more agencies will specialise in medical tourism in the future”. This situation is helped along, among others, with: “favorable climate, beautiful and often pristine natural environment” (Smith et al., 2016, p. 117), convenient location in Europe and competitive and sometimes relatively low prices for international medical tourists. This part of Europe is not only touristically attractive, but also innovative as for the access to technological medical specialisations (Wisla and Sierotowicz, 2016). It is crucial since according to Hemdi, Hassan, Aminuddin and Adanan (2016), tourism destination and healthcare attractiveness will positively and significantly influence future MTD choice. Idrus et al. (2012) add that the choice of the destination for the purposes of selected medical services consumption is affected by associations and positive image of the destinations. It should be stressed that the attributes and associations with “a particular destination can also influence the visit and revisit intentions of medical tourists” (Khan, Chelliah, Haron, and Ahmed, 2017, p. 15).

Extensive research into the phenomenon of MTD and marketing conducted mainly in Asian MTD (de la Hoz-Correa, Muñoz-Leiva, and Bakucz, 2018), strikingly reflects the fragmentary nature of scientific knowledge in this area. Until now, the authors of publications devoted to the issue of MTD have exclusively focused on the image created after visiting a given destination and the factors influencing it (Khan, Chelliah, and Haron, 2016a, 2016b; Khan et al., 2017). However, there is a lack of research on the associations of MTD, i.e. the one that was created in the mind of a medical tourist before direct contact with this place.

Therefore, the authors make an effort to fill, at least partially, the cognitive gap associated with the lack of studies on the MTD in CEEC, aiming at verification of CEEC as an MTD. Achieving the above goal will enable the answer to the following research questions:

RQ1: Which cities and regions are preferred by foreign medical tourists visiting Poland?

RQ2: Which medical services in Poland are consumed by foreign medical tourists?

RQ3: What is the level of savings on the use of medical services in Poland in relation to other CEEC?

RQ4: Do foreign medical tourists perceive Poland as MTD?

Answering the *RQ4* will enable the verification of two research hypotheses:

H1: Medical associations constitute a significant factor influencing the perception of Poland as MTD.

H2: The strength of association of Poland as MTD determines the choice of particular medical services.

Empirical verification of two research hypotheses (*H1*, *H2*) was made on the basis of the case study of Poland. The survey defined the relationship between the perception of Poland and its selection as the MTD as well as the Polish relationship as an MTD with the choice of a medical service. However, it should be noted that the selection of Poland should be treated only as an example of MTD in CEEC.

The present study contributes to the body of knowledge in two ways. Its theoretical part presents an overview of the MTD in medical tourism literature, whereas its empirical part fills an important gap regarding the lack of empirical content for the exploration of MTD in CEEC. The study serves as a springboard for the discussion on MTD in CEEC among foreign medical tourists, presenting a comprehensive analysis of the MTD and its better understanding in CEEC through the investigation of Polish case study.

1. Literature Review

According to Bookman and Bookman (2007) medical tourism is one of the mega trends in the twenty-first century. In the broad sense, the term applies to the situation when patients travel outside their permanent place of residence in order to use various health-related services, including tourism packages (Connell, 2013). Khan et al. (2017, p. 11) claim that this kind of tourism is “characterised by an influx of middle-class patients from industrialised countries and affluent patients from less economically developed countries making use of the medical services available at foreign destinations”. Although the term frequently refers to traveling to another country for healthcare, it should be noted that medical tourism can also occur within a patient’s country or region of residence (Hudson and Li, 2012; Lubowiecki-Vikuk, 2016, p. 31). Connell (2016, p. 531) clarified that this phenomenon concerns the “short-distance, diasporic, across adjacent and nearby borders trips of relatively poor patients seeking cheaper, more effective or more available care in appropriate cultural contexts”. The MTD applies to specific areas, i.e. countries, regions, cities and metropolitan areas (Ghanbari, Hajinejad and Rahmani, 2014), where the medical tourism product is offered, in other words prepared for sale as a package offer consisting of medical and tourism services, the basis for which is set by the presence of clinics and private providers of medical services (Rab-Przybyłowicz, 2014, p. 64). The main MTDs are the countries in Europe (UK, Germany, France, Italy, Spain, Poland, Malta, the Czech Republic, Slovakia, and Hungary), Asia (in particular Singapore, India, South Korea,

Japan, Thailand, and Malaysia), South America, and the Middle East (Fetscherin and Stephano, 2016; Michalkó, Rátz, and Hinek, 2012).

According to Khan, Chelliah and Haron (2016b, p. 134) medical tourists' perceived risks about medical services and their travel motivations will have a significant impact on the image of MTD. Medical treatments present many threats, most often due to the lack of legal regulations (e.g. on transplant procedures), clinical errors and mistakes by healthcare professionals, as well as overseas travels. The risk accompanying medical tourism services triggers a range of challenges in medical unit management. Taking into account push and pull factors, MTD image "is primarily influenced by medical treatments and services, destination attributes, and tourism-specific factors" (Junio, Kim, and Lee, 2017, p. 444). The research by Lu and Wu (2015, p. 243) clearly shows that "medical tourists felt that higher service quality led to better corporate image" of medical institutions, which was reflected in "positive influences on the perceived value" of MTD. In the literature a wide range of factors can be found that may influence the choice of MTD. The most frequent ones include: (1) the economic factors (lower costs of treatment abroad, the economic development of enterprises, country/region development), (2) the cultural and social factors (the need to preserve confidentiality for some people seeking medical treatment), (3) the organizational – legal factors (avoiding queues, access to medical procedures that are illegal in the patient's country of origin, effective marketing representatives of medical facilities, the ability to refund part of the cost of treatment), (4) technological factors (a high standard of medical care using state-of-the-art equipment), (5) spatial factors (travel distance), (6) natural factors (e.g. favorable climate) and (7) other (Chew and Koeshendro, 2015; Connell, 2013; Dryglas and Salamaga, 2017, 2018; Fetscherin and Stephano, 2016; Ganguli and Ebrahim, 2017; Lubowiecki-Vikuk, 2016; Lunt et al., 2014). It seems that the cultural factors play one of the key roles, since in case of health, it is necessary to eliminate language barriers or cultural differences (Sobo, Herlihy, and Bicker, 2011; Yu and Ko, 2012). It is not surprising that medical tourists take into account the destinations which share cultural and religious similarities (Musa, Thirumoorthi, and Doshi, 2012). Zhang, Seo and Lee (2013, p. 32) claim "that medical competency is the most important determinant of destination choice". Moreover, the awareness, perceived quality, brand loyalty and authenticity, credibility, sincerity, competence, and ruggedness may translate into an increase of the number of patients in a given MTD (Das and Mukherjee, 2016; Guiry and Vequist IV, 2015; Loureiro, 2015). Ghose (2010, p. 125) adds that "patients who are aware of the higher levels of service provided by the hospital brand are likely to consider the issue, and hence the onus is on the MTD image to educate the customer on the finest points of what to expect".

2. Methodology

In the course of secondary research, the study questions were verified (RQ1, 2, 3) on the basis of a thorough analysis of literature in the field of medical tourism (e.g. Lubowiecki-Vikuk and Rab-Przybyłowicz, 2015; Lunt et al., 2014; Rab-Przybyłowicz, 2014). Particular attention was paid to the studies on the image of MTD. In addition,

data from the report of the Polish Tourism Organization – PTO (2016) was used. PTO is a partner of the Ministry of Economy with which it holds responsibility for the promotion of health related services, which are part of economy based on Polish products brands. The descriptions of foreign segments interested in treatment in Poland, included in the PTO (2016) reports were made on the basis of reliable information collected from the selected Foreign Centers of PTO, i.e. in Berlin, Kiev, Moscow, New York and Stockholm (including Swedish, Norwegian, Danish and Finnish markets). In case of UAE data comes from PTO partners, including Polish Health Centers, i.e. medical centers with experience in handling patients from the Persian Gulf. As for primary research, empirical verification of one research question (RQ4) was made on the basis of the case study of Poland. However, it should be noted that the selection of Poland should be treated only as an example of MTD in CEEC.

The study consisted of two stages. In the first stage MTDs (Figure 1) and medical benefits (Table 1 and Table 2) expected by foreign medical tourism in Poland were identified in the light of secondary research. In the second stage, surveys were administered among Britons and Germans, who constitute a large segment of medical tourists in Poland, in order to collect the study material.

The Computer-Assisted Web Interviewing (CAWI) method was used to conduct the survey. The method was based on the technique of computer-assisted data collection. The advantage of this method is that it minimizes errors by automatically saving the database and its low cost. When choosing the CAWI method, the authors largely sought to keep private space of the researched community due to the fact that medical tourists are a fairly hard to reach research group, given the characteristics of a postmodern society, where the Internet plays an important role in everyday life, becoming a tool for interdisciplinary research (Zajac and Batorski, 2009). The participation in this kind of study is associated with comfortable conditions, for instance the respondents can choose convenient time for the interview. It was also assumed that “websites are frequently the first contact point with potential international service providers” (Maguire et al., 2016, p. 414) and that a critical role on the medical tourism market is played by the Internet (Connell, 2016).

Therefore, an original electronic questionnaire in two languages, English and German, was developed and translated by two independent translators. Next, on the basis of recommendations of the Medical Tourism Association and the International Medical Travel Journal, organizations and associations operating in the medical tourism services sector in Germany and Great Britain were selected. They were subsequently sent the questionnaire Internet address. An invitation to participate in the study was also made available on specially dedicated online forums and social networking sites, since as proved by Abubakar (2016, p. 598) – “virtual community membership has a strong influence on a (medical) tourist’s behaviours and the way information is transmitted”. In this way the questionnaire was targeted at a clearly defined group of people, i.e. those who visit selected websites related to medical tourism in the CEEC. The study was conducted from 1 to 30 September 2015, just after the end of the tourist season. The research group (n = 282) is not a representative sample. Despite the lack of reliable socio-demographic data of medical tourists (Lunt and Carrera, 2010), an attempt was

made to conduct this type of study. Both Britons and Germans completed the same number of surveys (141) in which an equal number of women and men participated (71 vs. 70).

In order to verify two research hypotheses the chi-square analysis and methodology of logistic regression were used. The answers (dependent variables) were coded as dichotomous variables, depending on whether or not Poland was chosen as the answer concerning particular medical services. If among the primary associations of Poland the respondents indicated at least one related to medicine (medical tourism, highly qualified medical personnel, high quality and a wide range of medical services, rehabilitation, dental services), the new variable was coded as 1, otherwise it was coded as 0. In order to examine the connection between medical associations and choosing Poland as the answer to questions about choosing MTD the odds ratio (OR) was calculated with the confidence intervals, which allows one to determine whether this association is statistically significant. If the 95% confidence intervals (CI) for the OR does not contain 1.0 we can conclude that there is a statistically significant (at the 0.05 significance level) association between variables. If the 95% CI for the OR contains 1.0, the association is not significant.

Moreover, the authors also created a new dichotomous independent variable, which measures the strength of medical associations in a three-step scale: lack of associations, one weak or at least two associations. Previously described analysis based on logistic regression was also carried out for a variable defined in this way. All statistical analyzes were conducted using data analysis software system - Statistica ver. 12.0. The significance level was set as p -value ≤ 0.05 .

The map was made in QGIS program, version 2.18. Vector graphics images were subsequently corrected in Inkspace program. The listed programs operate on GNU GPL licenses.

Table 1: Preferred consumption of medical services in Poland among foreign patients according to their country of origin

Russia	Ukraine	Denmark, Norway, Sweden, Finland	Belgium	U.S.	UAE	Germany	UK
cardiology	cardiology	cosmetic	allergology	cardiology	cardiology	cardiology	cosmetic
diabetology	diagnostic	dermatology	child-delivery	cosmetic	dental	cosmetic	dermatology
diagnostic	orthopedics	dental	dental	dermatology	diabetology	dermatology	dental
gynecology		diagnostic	dermatology	dental	obesity	dental	diagnostic
neurology		in vitro	diagnostic	orthopedics	orthopedics	diabetology	in vitro
oncology		ophthalmology	endocrinology	plastic surgery		diagnostic	ophthalmology
ophthalmology		plastic surgery	gynecology			endocrinology	plastic surgery
orthopedics		rehabilitation	laryngology			in vitro	prophylaxis
rehabilitation			ophthalmology			laryngology	
surgery			oral and maxillofacial surgery			neurology	
			paediatrics			obesity	
			psychological treatment			ophthalmology	
						orthopedics	
						plastic surgery	
						prophylaxis	
						rehabilitation	
						rheumatology	
						urology	

Source: own study based on (Lubowiecki-Vikuk and Dryglas, 2019; Lubowiecki-Vikuk and Rab-Przybyłowicz, 2015; Lunt et al., 2014; Mathijssen, 2019; PTO, 2016; Rab-Przybyłowicz, 2014)

Table 2: The level of savings on selected medical services in CEEC in comparison with the average UK and German prices (USD)

Medical services	Dental implant		IVF with donor eggs		Breast enlargement		Gastric bypass	
	UK	German	UK	German	UK	German	UK	German
Country				% saving on price				
Albania	69.2	68.5	22.7	↓16.9	37.2	40.7	50.2	7.6
Belarus	80.3	79.8	13.1	↓31.5	80.2	81.3	62.1	29.7
Bosnia and Herzegovina	84.0	83.7	15.5	↓27.9	61.4	63.6	25.9	↓37.5
Bulgaria	72.7	72.1	10.1	↓36.0	42.3	45.5	75.3	54.2
Croatia	66.9	66.2	↓10.4	↓67.1	36.9	40.5	93.1	87.2
the Czech Republic	62.4	61.5	25.1	↓13.4	46.6	49.6	59.7	25.2
Estonia	75.4	74.8	16.6	↓26.3	31.6	35.4	54.4	15.3
Hungary	51.1	50.0	27.4	↓9.8	44.3	47.4	38.9	↓13.4
Latvia	72.2	71.5	6.9	↓40.8	49.5	52.4	47.2	2.0
Lithuania	62.4	61.5	37.9	6.0	42.3	45.5	49.8	6.9
Montenegro	72.4	71.7	5.0	↓43.7	52.2	54.9	27.7	↓34.3
Poland	66.2	65.4	28.5	↓8.1	47.2	50.2	49.1	5.5
Moldova	86.5	86.2	36.1	3.3	45.6	48.6	↓2.5	↓90.3
Romania	63.2	62.3	24.6	↓14.1	41.3	44.6	29.1	↓31.6
Serbia	63.0	62.1	5.0	↓43.7	9.8	14.9	↓1.8	↓88.9
Slovakia	60.9	60.0	36.1	3.3	46.7	49.7	57.8	21.6
Slovenia	66.2	65.4	35.0	1.7	45.8	48.9	57.8	21.6
Macedonia	69.9	69.2	7.3	↓40.2	47.7	50.7	13.9	↓59.8
Ukraine	78.6	78.1	42.4	12.9	79.8	80.9	48.8	5.1

↓ means that the average price of medical service is by % higher in comparison with UK or German prices

Source: own study based on (Treatment Abroad, 2016)

3. Empirical Results

Figure 1 shows the MTDs in Poland, according to the preferences of foreign patients/medical tourists. These are mainly large cities with available infrastructure, air

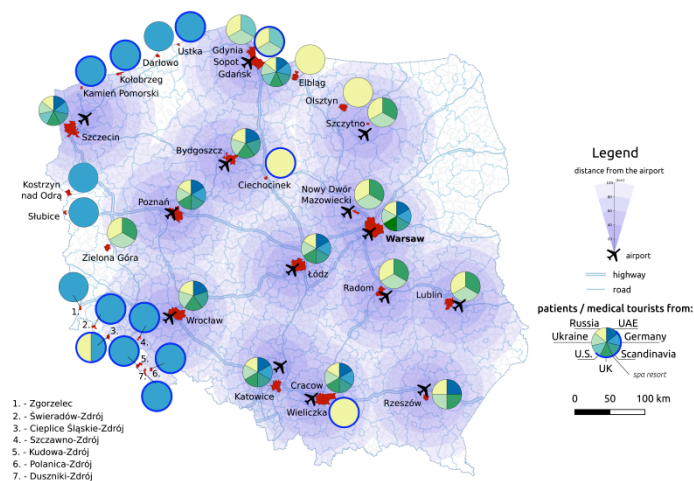


Figure 1: Map showing the MTDs (cities and regions) in Poland according to the preferences of foreign patients/medical tourists

Source: own study based on (Lubowiecki-Vikuk and Rab-Przybyłowicz, 2015; Lunt et al., 2014; PTO, 2016; Rab-Przybyłowicz, 2014)

transport and spa resorts, favored especially by the citizens of Germany and Russia. It is worth paying attention to the areas located within 100 km from the airport, because, as it was pointed out by the respondents, these are the MTDs of their potential interest. Szczecin and Gdansk are the only cities preferred by patients irrespective of their country of origin. Apart from the above mentioned cities, also Cracow, Katowice, Warsaw, Lodz, Poznan and Wroclaw boast international status in this respect.

As it was established in this study, foreign patients coming to Poland would prefer the consumption of various types of medical services (**Table 1**). A wide range of services is sought by the Germans, whereas the Ukrainians were determined to opt for treatment only in the field of diagnostics, orthopedics and cardiology. Dental services were also highly desirable among foreigners (except the Russians and Ukrainians).

The cost is an inherent element of the medical tourism market, especially with regard to medical benefits. Estimating the savings prospects in the consumption of medical services selected by British and German medical tourists, it is striking that the prices of these services in Poland are favorable for them (**Table 2**). However, surprisingly, the survey results indicate that there is no direct correlation between the amount of savings and the number of both British and German respondents choosing a particular country as a target MTD. The savings on dental services offered in Poland, as compared with other CEEC, are rather moderately attractive (12 position of Poland). Much more attractive are the prices of IVF services and breast enlargement surgeries (6 and 7 position, respectively, among CEEC). However, the prices do not translate in any way

into a statistically significant influence on the frequency of selection of the country where specific medical services are to be purchased.

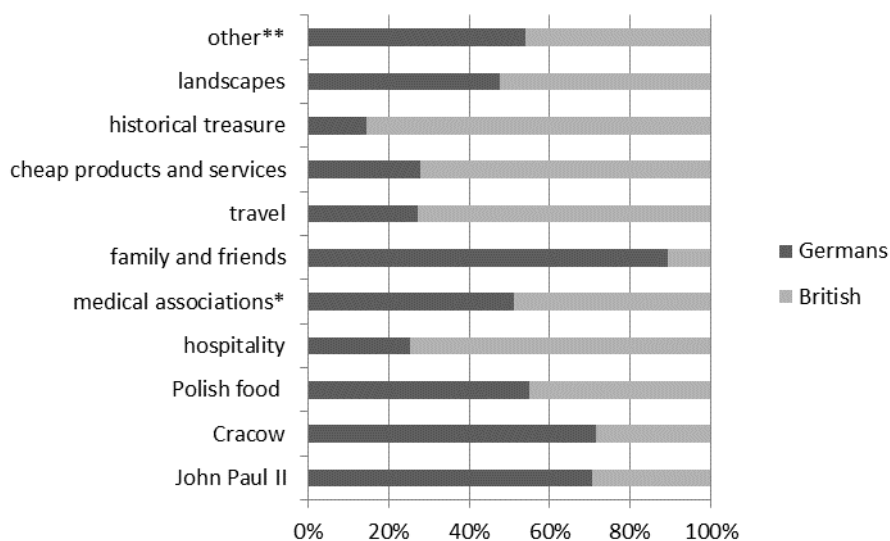


Figure 2: The associations connected with Poland among respondents according to their country of residence

Notes: *medical tourism, highly qualified medical personnel, high quality and a wide range of medical services, rehabilitation and/or dental services; **economic development, building engineering, Warsaw, cosmetics, clothes, leather accessories and other

Source: own study

Specific connotations associated with Poland had a much greater effect on the respondents' choices. The respondents could choose up to three associations related to Poland. The following options were included: travel, rest, recreation, cheap products and services, pretty landscapes, historical monuments, art and culture, *medical tourism, highly qualified medical staff, high quality and a wide range of medical services, rehabilitation services, dental services*, friendly people and hospitality, Warsaw, Cracow, Pope John Paul II, Polish food specialties, family or friends, and others. The associations printed here in italics were called "medical associations".

Figure 2 presents the most frequently chosen associations with Poland. They are the medical associations (23.8%), John Paul II (11.9%), Cracow (11.8%), Polish food specialties (10.9%), as well as friendly people and hospitality (10.1%). It is worth noting that the medical associations, Polish food and landscapes were selected with similar frequency, regardless of nationality. The remaining responses showed great diversity. The most striking discrepancy characterized the answers of Cracow and John Paul II, which were more frequently chosen by the Germans (respectively, 17.0% vs. 6.8% and 17.0% vs. 7.1), as well as the hospitality and historical monuments which were often opted for by the British (respectively, 14.9% vs. 5.1% and 10.8% vs. 1.7%).

Table 3: Medical associations of respondents and the strength of association of Poland as MTD with the choice of particular medical services

	medical associations		the strength of medical associations		
	yes	no	2	1	0
dental services					
%	90.2**	60.0	93.2	88.6	60.0
OR	6.1	1	9.1	5.2	1
95% OR	(3.2;11.8)	-	(2.7;30.8)	(2.5;10.84)	-
in vitro, infertility treatments					
%	81.1***	58.0	86.4	78.4	58.0
OR	3.1	1	4.6	2.6	1
95% OR	(1.8;5.3)	-	(1.8;11.5)	(1.4;4.8)	-
body sculpting (liposuction), aesthetic medicine, plastic surgery					
%	88.6*	66.7	88.6	88.6	66.7
OR	3.9	1	3.9	3.9	1
95% OR	(2.1;7.4)	-	(1.5;10.5)	(1.9;8.2)	-
ophthalmological services					
%	84.8*	60.7	88.6	82.9	60.7
OR	3.6	1	5.1	3.2	1
95% OR	(2.0;6.5)	-	(1.9;13.6)	(1.7; 6.0)	-
rehabilitation services					
%	86.2**	52.7	88.6	82.9	52.7
OR	5.4	1	8.5	4.6	1
95% OR	(3.0;9.8)	-	(2.9;25.0)	(2.4;8.8)	-

Notes: the difference is statistically significant * $p \leq 0.01$; ** $p \leq 0.001$; *** $p \leq 0.05$ between the medical associations ('yes' or 'no'); odds ratio (OR) were computed with reference to the medical associations
Source: own study

Among the respondents aged 60+ and 30–39 Poland is most frequently associated with Pope John Paul II (respectively, 17.3%, 13.0%) and Polish food specialties (13.4% and 13.0%). The surveyed persons aged 50–59 associated Poland mainly with friendly people and hospitality (16.3%), those aged 40–49 associated Poland primarily with historical monuments, art and culture (7.3%) while the youngest respondents (aged 18–29) with Cracow (17.9%).

The results show that the respondents who indicated at least one association with medical services, more frequently chose Poland as their medical travel destination (Table 3). The most striking differences can be seen in the case of dental and rehabilitation services. The calculated OR shows that the chance that a person opting for an association connected with medical associations is six times more likely to choose Poland as a travel destination of dental services (in the case of rehabilitation services more than five times) than in the case of the remaining respondents. Statistically significant differences were also noted as concerns body shaping and ophthalmic services (almost four times greater chance) as well as in vitro (more than three times greater chance).

The questionnaire also revealed that the strength of medical associations – measured by the number of marked associations – increases the chance of selecting individual services in almost all the categories of considered services. The only exception is body sculpting (liposuction), aesthetic medicine and plastic surgery, where the odds ratio has not changed.

Discussion and Conclusion

The findings of this study clearly show that against CEEC background, Poland may be considered a leading MTD (Fetscherin and Stephano, 2016), which in particular confirms the opinions of German and British patients/medical tourists. Furthermore, it has also been shown that foreign patients are interested in the consumption of medical tourism services available not only in large cities, spa resorts, but also the ones located within 100 km from the airport. Schmied and Ransberger (2013) emphasize that medical tourism and its individual categories should not develop only in large urban areas. They claim that this development should also apply to rural areas. The example of Poland shows that medical tourism usually refers to the areas that are characterised by specific institutional and organizational structure which facilitates the promotion of the medical tourism product (Rab-Przybyłowicz, 2014). Medical tourism areas relate to socio-economic regions and border areas. The socio-economic regions in this case include agglomerations, conurbations and spas. The reasons for this type of arrangement should be seen not only in relation to the economic level of a given region, but in the organization and operation of medical tourism traffic. It is primarily based on the availability of transport (the location of medical entities in the border areas and in cities with an extensive transport infrastructure such as the airports, highways, or ports), medical infrastructure (accredited hospitals and clinics) and medicine related tourist infrastructure (accommodation facilities, including medical hotels), the occurrence of tourist attractions and accessibility to high-quality medical services provided by the most eminent specialists and experienced staff. Basically, the “cities around the world boast state-of-the-art hospitals which attract, and cater to, foreign patients from developed countries” (Frederick and Gan, 2015, p. 98).

Foreign medical tourists travelling to Poland are undoubtedly seeking a wide range of medical services, among which dental services (predominate) and rehabilitation (Dryglas, 2018; Kovacs and Szocska, 2013; Lubowiecki-Vikuk, 2018). These services are usually considered non-invasive (in the case of dental services just prevention). Apart from that, the selection of MTD plays an important role in taking risk by the patients. Asian countries are endemic regions, especially for patients from Europe or the Americas (Lubowiecki-Vikuk, 2016, p. 36). Therefore, the choice of German or British medical tourists of non-invasive medical services in particular to be purchased outside their region of residence or in neighboring countries (including Poland) should be regarded as reasonable and quite safe. Such a choice also allows them to feel protected against culture shock sensation (Connell, 2013).

Literature dealing with the topic in question frequently highlights the fact that it is the lower cost of health services that determines treatment (Borek, 2013; Connell, 2013; Lunt et al., 2014). From all “global medical tourists, 40% travel due to a lack of advanced technology in their own country, 32% travel to seek better quality services and 12% travel for lower-cost treatments” (Khan et al., 2017, p. 12). Therefore, the aspect related to the patient’s savings should be regarded as important but not a priority (Crooks et al., 2011; Pollard, 2012), which was also shown in the study. There is no direct correlation between the amount of savings and the number of both British and German respondents choosing a particular country as a target MTD. One explanation is that as for health, health itself is of the highest value.

In the course of own research it was established that Poland is identified through medical associations, but also its history (including Cracow, historical monuments, art and culture) and prominent individuals like John Paul II. The above associations depend on the age category of the respondents. According to Baloglu and McCleary (1999) is one of the key variables affecting the general image of a given destination. It is pointed out “that Poland still does not have a distinctive, coherent and attractive tourist image abroad” (Kiryluk and Glińska, 2015, p. 671) which is significantly better created by towns and cities. The reason is perhaps that the authorities of territorial units are able to and want to present clearly the strong points of their towns and cities. Against the background of Polish MTD, urban agglomerations excel, including the historic city of Cracow and the surrounding areas. According to those studies, it is not only a frequent association with Poland of the Germans, but the region with particular strong points necessary for the development of MTD. The fact that potential tourists prefer to receive medical services in the places where they would like to holiday (Khan, Chelliah, and Haron, 2016a) provides additional opportunities for the development of such areas.

The present study brings a contribution to MTD marketing development. Its added value can be considered in two dimensions: cognitive and applied. As for the former, the study contributes to the advancement of the theory of marketing tourism via MTD analysis performed on the basis of a thorough literature review. As for the latter, the study enriches the current knowledge on how medical tourists evaluate MTD. As a result of the conducted research it can be stated that the selection of MTD is affected by associations. Consequently, it enhances the reputation of a country as a MTD, which should be taken advantage of in practice. Therefore, not only the specific features of the MTD determine the success but also, to a large extent, how the medical tourists perceive the given MTD.

Similarly to other studies, this one also has its limitations. First of all, the results presented are derived from a small sample. However, since generalisation was not the aim of the study, this limitation is not considered very serious. Secondly, the study was limited by the methodology applied as outlined below. The CAWI method has some disadvantages. Many people still do not have Internet access and the rate of Internet use among the elderly is low.

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