MEDICAL TOURIST SATISFACTION AND DISSATISFACTION WITH DENTAL CARE SERVICES: AN EXPLORATORY CASE STUDY

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Abstract
Purpose – The first purpose of this study was to identify some key attributes of foreign patients' satisfaction and dissatisfaction with dental care services provided by selected dental clinic located in Zagreb. The second purpose was to provide dental clinics managers with valuable insights on how to increase the level of their patients' satisfaction and sales volume.
Design – This study was designed as an exploratory case study primarily because dental tourism is, in general, a relatively new phenomenon that needs to be further investigated, from various aspects and in different environments (destinations). Other two reasons were the distinct lack of academic research on dental tourism, and relatively small size of our sample.
Methodology – A self-completion questionnaire was completed by 253 foreign patients after they have completed their dental care treatment in the selected dental clinic. An impact-asymmetry analysis and impact-range performance analysis were employed to identify key aspects of dental care service delivery improvement.
Approach – The focus of this research was on foreign patients' expressions regarding their satisfaction and dissatisfaction with various aspects of dental care arrangement provided by the selected dental clinic.
Findings – This research has revealed that dental tourists' satisfaction or dissatisfaction is mostly determined by the quality of product/services and the staff professionalism and competence. In contrast, price of the service, appointment schedule, and information availability are attributes that have relatively weak influence on patient satisfaction with dental care service delivery.
Originality of the research – Considering the fact that the overall research on dental tourism is relatively scarce, this research have both, scientific and practical values, especially for dental clinics and tourism destination stakeholders in order to deliver dental care services to the international demand more efficiently.
Keywords dental care, medical tourism, health tourism, Zagreb

INTRODUCTION

Travelling away from home for health-reasons is not a phenomenon of the modern era. For centuries, people have traveled from one place to another for the specific purpose of maintaining or improving their health condition, using healing agents or healing procedures to (re)establish the balance of their body, mind and spirit. Following the pace of up-to-date medicine development in the sense of widespread medical education, focused scientific research and accessible publications, improvement of health-care treatments and diagnostics, introduction of international certification and accreditation systems for health-care institutions, evolution of health-care practices and

health insurance networks worldwide, a 'health component' embedded in tourism system is becoming an increasingly important aspect of tourism development in the 21st century. The convergence of medicine and tourism towards their common development patterns has created a variety of health-related tourism services and health-care packages, including the emergence of specialized intermediaries and specially designed facilities that support the entire health tourism concept.

In order to distinguish health tourism from other tourism products, it can be regarded that health tourism is a special interest tourism driven by ongoing convergence of the health-care and tourism systems, special needs set by affluent demand, and the legal framework that enables internationalization of the health care service providing and payment. In its broadest sense, health tourism can be regarded as a mixture of leisure, recreation, relaxation and medical treatments, predominantly used by individuals outside their usual environment for a certain period of time due to one of the three main reasons: 1) curative (healing) therapy, 2) preventive (relaxation) treatment or 3) medical (surgical) intervention. On account of such contrast in health-care approach, the health tourism market can be segmented according to traveler's needs, motivation, willingness and ability to travel for health care purposes (e.g. Smith and Puczko 2009), but also according to the source of payment for health-related services (insurance funds, out-of-pocket payment etc.), ownership of the health care institution participating in service providing to tourists (private, public, public-private partnership), etc. (e.g. Kesar and Rimac 2011).

In Croatia, just like in many developing countries, health tourism has been highlighted as one of the most prospective products with regard to growth and significance in the forthcoming years (Ministry of Tourism of the Republic of Croatia, 2013). Given the high relevance of medical tourism, subsumed within the wider concept of health tourism, the present study has focused on dental tourism as one of the newest and fast growing segments of the international medical tourism market. This study was targeting on foreign dental tourists visiting a privately owned dental clinic located in Zagreb (the capital of Croatia) in search for a fair balance between the quality and the price of dental care service packages.

In order to discover which attributes of dental care service packages were associated with foreign patients' satisfaction and/or dissatisfaction, a survey has been carried out among international dental tourists visiting the selected dental clinic in the city of Zagreb. Hence, the purposes of this study were to:

1) explore which dental care service elements and attributes contribute most to the creation of dental tourist satisfaction and/or dissatisfaction; and
2) provide dental clinic managers with valuable insights on how to increase their patients' satisfaction and sales volume.

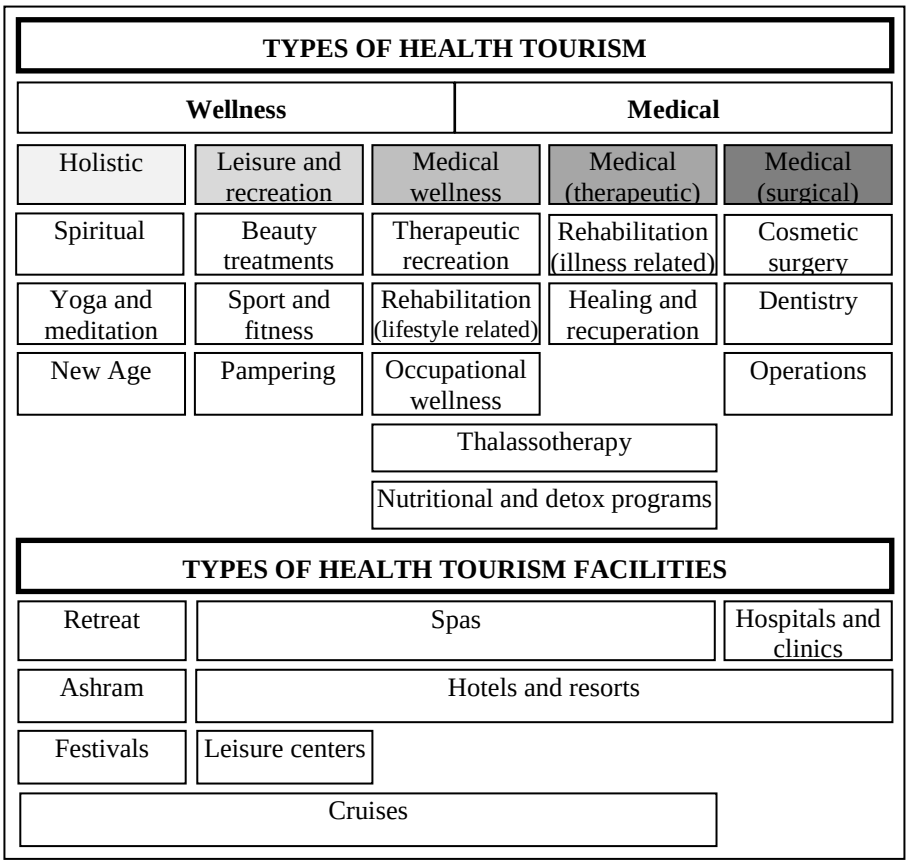
1. CONCEPTUAL FRAMEWORK OF THE HEALTH TOURISM

Spending time and money on health treatments and related services in a distant place with particular source of healing agent and/or health care institution, exists already for centuries. Even in ancient times, Greeks went to Epidauria because of the health-giving god Asklepios, while Romans went to thermal baths because warm water is good for the joints (Reisman 2010, 1). Ever since then until modern times, today's Greeks and Romans, accompanied by all other nations, are still engaged in similar efforts to maintain or improve their health, regardless of time, place or personal needs. Although the core concept of health-related travel remained more or less the same throughout the centuries, the size of population traveling away from home for health care purposes, the variety of health care services offered, and the availability of information related to medical treatments and institutions, have substantially changed over time. These changes were stimulated by various external factors that have led the health-related travel market to grow and develop at a tremendous pace. Among them, most influential were the general rise of living standards, ageing of population, globalization, and liberalization of international trade in services (Kesar and Rimac 2011, 108). Apart from the external factors, there are also many internal factors (or personal motivators) that often trigger people's dissatisfaction with their current health condition and encourage behavioral changes towards maintaining or regaining their health 'at reasonable effort and costs'. Among internal factors, Langviniene (2014, 23) emphasizes a growing attention to the healthy lifestyle, individual's quality of life and necessity to prolong the active life being healthy. For all these and other reasons, health tourism market is likely to experience continued growth and development in the years to come, especially those segments that brings more value-added to both sides of the market.

The structure of the health tourism market was initially explained by Van Sliepen (as cited by Goeldner 1989, 7), who has identified five distinct health-related market segments observed from the demand-side: 1) sun and fun activities (leisure tourism); 2) engaging in healthy activities, but health is not the central motive (sports tourism, wellness tourism); 3) principle motive for travel is health (health tourism, wellness tourism); 4) travel for sauna, massage, and other health activities (spa tourism, wellness tourism); and 5) medical treatment (medical tourism, dental tourism). From the supply-side of the market, Kesar and Rimac (2011, 115) have distinguished four different market segments, using Croatia as a case study: 1) sanatorium/hospital/healing 'tourism', 2) spa/thermal/thalassotherapy tourism, 3) wellness tourism, and 4) medical tourism. Since the beginning of the current decade and according to the contemporary market development trends, such classification remained to reflect a simple, effective and comprehensive approach to the health tourism market segmentation.

Along with the evolution of special interest tourism concept based on the multilayered market segmentation, health tourism product has also evolved into many specialized sub-products, as shown in Figure 1.

Figure 1: **Spectrum of health tourism services and facilities**



Source: Smith and Puczko (2009, 7)

Such spectrum of health tourism services, facilities and related sub-products is apparent in the large body of literature on health tourism, covering various aspects of scientific research like health-related tourist motivation (e.g. Mak *et al.* 2009; Chen *et al.* 2008), health care system integrated in tourism product (e.g. Pocock and Phua 2011; Hall 2011), health tourism product development (e.g. Cormany and Baloglu 2011; Garcia-Altes 2005), health tourism market positioning (e.g. Goodrich 1994), ethical and normative issues in health tourism (e.g. Cohen 2014; Hall 2013), etc.

There are numerous related studies in the academic literature that are substantiated with multidisciplinary and diverse backgrounds (Chuang *et al.* 2014, 49). Along with diversification of health tourism products into many specialized sub-products, particularly wellness (e.g. Smith & Puczko 2009; Erfurt-Cooper and Cooper 2009) and medical tourism (e.g. Lunt and Carrera 2010; Connell 2006), there are many evidences that each of them have continued with its segmentation and specialization. In that context, many authors elaborate findings on various medical tourism sub-products attributing them to terms of specialized treatments such as dental tourism (e.g. Chandu

2015; Conti *et al.* 2014; Österle *et al.* 2009; Turner 2008), reproductive (e.g. Nahman 2013) or fertility tourism (e.g. Bergmann 2011), abortion tourism (e.g. Bloomer and O'Dowd 2014), arthroplasty tourism (e.g. Cheung and Wilson 2007), transplant tourism (e.g. Cohen 2013), apheresis tourism (e.g. Srivastava 2006), stem cell tourism (e.g. Petersen *et al.* 2017), including controversial topics like organ trafficking (e.g. Ambagtsheer *et al.* 2013), and many others.

In 2006, the international health tourism market was sustained by 617 million individuals, with an annual growth rate of 3.9% and worth US$513 billion (Carrera and Bridges 2006, 447). Based on these data it can be calculated that, in 2017, the global health tourism market consists of roughly 940 million individuals and worth about US$780 billion. Such a huge market is a great opportunity for many tourism destinations, aiming at health tourism market, to support and promote investments and interconnection between health care and tourism systems in order to meet increasingly sophisticated and growing (domestic and international) demand. Special attention is thereat given to the non-resident demand looking for specialized health care and personalized tourism services, having in mind that most of these services are paid directly by patients and without delay.

2. CONTEMPORARY TRENDS IN MEDICAL TOURISM DEVELOPMENT

A significant subset of health tourism market is created by medical tourists, a large number of individuals who travel outside their "natural healthcare jurisdiction for the enhancement or restoration of the individual's health through medical intervention" (Carrera and Bridges 2006, 447). Due to a tremendous growth of the health-care market focused on wealthy individuals willing to travel away from home country for more affordable medical treatment, medical tourism has become a social and economic phenomenon that keeps fascinating scientists and practitioners in this interdisciplinary field of research.

The history of medical tourism begins with people who used to travel from less developed countries to economically advanced, primarily Western European countries and USA, to receive a superior diagnostics and medical treatment. However, these trends have changed dramatically since the beginning of the third millennium. According to Horowitz *et al.* (2007, 2), an increasing number of patients from highly developed nations started to travel to less developed countries, bypassing medical care that is offered in their own community, but is inaccessible or undesirable to them. This change in trends was driven by many factors. From the standpoint of medical tourists' home countries, these factors are regularly the high costs of medical treatments and related services, long waiting lists for diagnostics and treatments, absence of health insurance coverage, legal constraints regarding certain medical treatments, etc. From the standpoint of medical tourism destinations, factors that attract medical tourists are much affordable health-care packages (not just a single treatment), approximately the same quality of medical service, staff, equipment and facilities as in developed countries, internationally certified and accredited health-care institutions approved by relevant international organizations, development of global health insurance networks,

emergence of specialized intermediaries and patient-friendly web sites, etc. All these factors continue to have strong influence on international medical tourism movements.

The international cross-border medical service providing and delivery are governed by the General Agreement on Trade in Services (GATS), which has accelerated the liberalization of the trade in health services (Smith *et al.*, 2009). This Agreement allows countries to make binding liberalization commitments in four 'modes': (1) cross-border supply (telehealth or laboratory services), (2) consumption abroad (medical tourism), (3) commercial presence (foreign investment in health facilities) and (4) natural persons (temporary migration of health workers abroad) (Hopkins *et al.*, 2010: 190). However, its implementation is uneven between service sectors, modes of trade and member countries, and its effects are thus far modest (Hoekman 2008 cited by Crooks *et al.* 2016, 188). In spite of its positive features, many governments see the Agreement as a formal barrier to international investments and consumption.

There are many reasons why people travel across the globe in search for medical treatments that comply with their needs and expectations in quality, time and money. According to research finding provided by Lunt *et al.* (2011, 11) it is apparent that the range of treatments available overseas for prospective medical tourists are wide, including:

- Cosmetic surgery (breast, face, liposuction);
- Dentistry (cosmetic and reconstruction);
- Cardiology/cardiac surgery (by-pass, valve replacement);
- Orthopedic surgery (hip replacement, resurfacing, knee replacement, joint surgery);
- Bariatric surgery (gastric by-pass, gastric banding);
- Fertility/reproductive system (IVF, gender reassignment);
- Organ, cell and tissue transplantation (organ transplantation; stem cell);
- Eye surgery; and
- Diagnostics and check-ups.

Regardless of the treatment required, a supreme quality of health care services, cutting edge technology used in medical treatments and highly supportive tourism services form the backbone of successful medical tourism development in any part of the world. With the rapid increase in medical tourism demand and the emergence of various service providers that create the supply-side of the market, a network of medical tourism intermediaries, so called facilitators, has been developed to assist international medical travelers to find appropriate medical institution according to their needs and to help them in managing their travel arrangements.

The Internet is of special interest to the medical tourism industry, since websites may be the first and only contact between potential customers and service providers (Kavoura and Katsoni 2013 cited by Kasemsap 2015, 92). In this regard, medical service providers and specialized intermediaries nowadays pay special attention to the content (Cormany and Baloglu 2011) and the interactivity of their web pages as well as to the virtual communication with potential patients using online social networks like Facebook, Instagram, Twitter or YouTube. Without doubt, the online communication

and distribution will remain the key to success for both, the health-care institutions and specialized intermediaries in disseminating information and selling their services to a distant demand.

Many countries have recognized medical tourism as a means of gaining significant benefits to their health-care system, tourism and the local economies. In that sense, Singh (2014, 36) point out that medical tourism brings many opportunities to destinations to enhance foreign exchange, public revenues, job creation, infrastructure development and balanced economic development, but also plays important role in future medical care at global level because of the advancements in technology and economy. In their research on policy implications of medical tourism development, Johnston *et al.* (2015) emphasize that medical tourism system is nowadays targeted by many governments, destinations and health-care institutions, like privately-owned practices, clinics and hospitals, who intensively promote development of medical tourism in anticipation of future demand-side market expansion. According to Gahlinger (2008), there are over 50 countries in the world, predominantly developing countries such as Thailand, India, Singapore, Malaysia, Cuba, Tunisia, Turkey, Lithuania, Poland, Hungary, and many others that have identified medical tourism as a national industry and thoroughly adapted their health care systems to be able to receive international patients.

Although medical tourism brings many benefits and positive impacts on patients, health-care systems and tourism destinations targeting international demand for health-care services, there are many ethical issues and controversies that rise awareness of the health and human rights organizations, academic community and the legal system institutions. The common criticism against medical tourism is that it: 1) contributes to the commodification of health and health care by allowing those with the financial means to do so to purchase care that may be unavailable to other citizens, 2) allows international patients to receive a higher standard of care than residents of the country where it is being given, 3) support misdirecting of the public funds for education and training of medical staff who are involved in privately treating international patients (Crooks *et al.* 2010, 266).

As already mentioned in the Introduction, the focus of this study was on dental tourism, a subset of medical (surgical) tourism (as shown in Figure 1), which refers to a market segment of individuals traveling mostly from a developed country (e.g. of the West or North Europe) to some developing country (e.g. of the Central and Eastern Europe) in pursuit of timely and more affordable dental-care treatment. Substantial potentials of dental tourism market are recognized mostly by privately-owned dental clinics in large cities (e.g. Zagreb in Croatia, Budapest in Hungary or Krakow in Poland) as a great opportunity to attract additional number of patients (often as a major source of revenues), targeting on wealthy international demand from developed countries.

According to Turner (2008, 553), dental tourism is, just like the entire concept of medical tourism, driven by numerous factors, such as, the high cost of local dental care, delays in obtaining access to local dentists, competent care at many international clinics, inexpensive air travel, and the Internet's capacity to link 'customers' to 'sellers' of dental services. In her research on dental tourism in Croatia, Loubeau (2009, 196)

emphasized that Croatia is a prime candidate for offering dental care for citizens who reside in the United States, United Kingdom and Canada, primarily because of very high prices of dental care services, restrictive health-care system regulations and long waiting lists for dental appointment in these countries. On the other side of the market, dental care in Croatia is supported by favorable medical-legal environment, low costs of dental care services, inexpensive professional liability insurance premiums, and well trained and credentialed dental staff who commonly speak foreign languages of their foreign patients. As stated by Loubeau, tourists coming to Croatia for dental care can enjoy the Adriatic coastline and other prime attractions in cities like Zagreb as an added bonus, considering Croatia as tourist friendly country that offers an advantage over other countries that do not. According to the publicly available Registry of Doctors of Dental Medicine in Croatia (2017), in March 2017 there were in total of 3.260 dental doctors in Croatia, while only in Zagreb there were 946 dentists who hold a common share of 29% in total number.

3. MEASURING PATIENT SATISFACTION IN HEALTH CARE DELIVERY

Patient satisfaction studies that have so far been conducted within the area of health care services, dominantly employed the SERVQUAL instrument (e.g. O'Connor *et al.* 2000), or a formative multi-attribute operationalization based on identified key-drivers of patient satisfaction (e.g. Chang and Chang 2013). While the SERVQUAL approach has a longer tradition in academic studies of this kind, formative attribute models dominate the more contemporary literature, because the dimensional design of the SERVQUAL model provides managerial implications at a relatively higher level of abstraction compared to attribute models, which are capable to point to very specific strengths and weaknesses of the analyzed service. Regardless of the taken approach, the objective of these studies, which are typically set within a case-based research design, is to assess the significance of individual service quality dimensions or service attributes in explaining patient satisfaction, which is a crucial antecedent to patient loyalty and positive word-of-mouth behavior (e.g. Gremler *et al.* 2001).

The perspective taken on the relationship between attribute- or dimension-level satisfaction and overall patient satisfaction is typically linear, meaning that higher levels of perceived performance or satisfaction with an individual service attribute goes along with a proportional increase in overall patient satisfaction. Only a few studies have so far taken into consideration that this relationship does not necessarily have to be linear, but that may potentially be nonlinear and asymmetric, in line with the general assumptions of the Kano model (Kano *et al.* 1984) and the related three-factor theory of customer satisfaction (e.g. Füller and Matzler 2008). According to this theory, there are three distinct kinds of service attributes based on their impact on the customer's global satisfaction—i.e., (i) satisfiers (or delighters), (ii) dissatisfiers (or frustrators) and (iii) hybrid attributes. Satisfiers are service attributes that exhibit a stronger influence on overall customer satisfaction when performance of these attributes is at high levels, compared to their influence on overall customer satisfaction when performance is at low levels. Put differently, these attributes have a larger potential to cause customer satisfaction and/or delight, as compared to their potentials to cause

customer dissatisfaction and/or frustration. In contrast to this category of service attributes, dissatisfiers have a diametrically different influence on the customer's global service satisfaction. Dissatisfiers such exhibit a much stronger influence on overall satisfaction when performance is low than when performance is high. In this regard, potentials of such attributes to cause satisfaction are limited, while their potentials to cause dissatisfaction are high. Finally, hybrid attributes are service attributes which are linearly related to overall satisfaction, meaning that low performance causes dissatisfaction, while high performance causes satisfaction. Important managerial implications emerging from the existence of such a structure of customer satisfaction is that it is possible to allocate resources into service improvements based on whether the goal is to minimize dissatisfaction, on the one hand, or maximize satisfaction, on the other hand.

4. METHODOLOGY AND DATA SOURCE

4.1. Objectives

The primary objective of this study was to investigate which elements and attributes of dental care services contribute most to the creation of dental tourist satisfaction and dissatisfaction. Given the rising relevance of health tourism for the Croatian tourism and the potentials of, in particular, dental tourism, results of this study should help obtaining an initial impression about what is important for achieving a delightful dental service experience among international patients.

4.2. Data and sample

This study used survey data which were obtained from 253 international patients of a selected dental clinic located in Zagreb. The data were collected as required by the ISO 9001:2008 norm using a self-completion questionnaire. Overall, six key elements/attributes were rated on a five-point scale, i.e. 1) acceptability of prices; 2) honoring scheduled appointments and deadlines; 3) completeness of service program; 4) quality of product/services; 5) information availability about clinic and services; and 6) staff professionalism and competence. According to the place of residence of international patients covered in this case study, 48.2% come from Italy, 44.0% from the UK market, and 7.9% from Slovenia. The sample is balanced according to the gender of international patients, while the majority of patients are aged 50+.

4.3. Analysis approach

In order to explore the potentials of individual dental care service attributes to impact overall patient/tourist satisfaction, this study uses the analytical framework introduced by Mikulić and Prebežac (2008) to assess: 1) impact (determinance)-asymmetry and 2) impact-range of the individual dental service attributes. This analysis facilitates the classification of service attributes into satisfiers (delighters), dissatisfiers (frustrators) and hybrid attributes according to the previously outlined three-factor structure of client/patient satisfaction.

So far, the IAA analysis framework has been used in several tourism-related study context, involving tourist entertainment (animation) services (Mikulić and Prebežac 2011), restaurant and food attributes (Back 2012), protected areas management in marine tourism (Coghlan 2012), yachting destination management (Mikulić *et al.* 2015), meetings and conventions (Lee and Min 2013), among others.

In the first step of the analysis, the necessary data have to be prepared. For this purpose the attribute-performance ratings obtained from the questionnaire-based survey are used to prepare two sets of binary-coded data for each service attribute. The first set is the penalty-set which is obtained by coding only lowest ratings '1', while all other ratings are coded zero. Analogously, the second set is obtained by coding only highest ratings '1' and all other ratings zero. In a second step, the binary-coded data are regressed against the rating of overall satisfaction (OS) according to equation 1 (Mikulić and Prebežac 2012a 5149):

$$OS = b_0 + \sum(p_i d_{p,i} + r_i d_{r,i}) + \varepsilon \qquad \forall i \in I \tag{1}$$

where b_0 is the constant, p_i the incremental change in OS as a consequence of *very low* performance of attribute i, $i \in I$ (penalty score), r_i the incremental change in OS as a consequence of *very high* performance of attribute i, $i \in I$ (reward score), $d_{p,i}$ the dummy variable for attribute i, $i \in I$ with a value of 1 for lowest performance ratings and a value of 0 for all other ratings, $d_{r,i}$ the dummy variable for attribute i, $i \in I$ with a value of 1 for highest performance ratings and a value of 0 for all other ratings, and ε the error term. Penalty and reward scores are unstandardized regression coefficients (Mikulić and Prebežac 2012b).

In order to classify the service attributes according to the direction of their impact (i.e. determinance) on overall satisfaction, absolute values of penalty and reward scores are compared:

- $|p_i| > r_i$: negative impact-asymmetry → the attribute is a dissatisfier as it has a stronger effect on OS when its performance is perceived low than when it is perceived high.
- $|p_i| \cong r_i$: symmetric impact-asymmetry → the attribute is a hybrid attribute as it has approximately equal effects on OS when its performance is perceived low and when it is perceived high.
- $|p_i| < r_i$: positive impact-asymmetry → the attribute is satisfier as it has a weaker effect on OS when its performance is perceived low than when it is perceived high.

Finally, in order to obtain an indication of absolute effect sizes of the individual dental service attributes, absolute values of penalty and reward scores are summed up to obtain a measure of the range of impact on overall satisfaction (RIOS). In this regard, the analysis further enables to discriminate between higher- and lower-impact attributes based on an arbitrarily set threshold (e.g. arithmetic mean or half-distance value between highest and lowest RIOS scores). Moreover, by calculating ratios between absolute penalty and reward scores, on the one hand, and respective RIOS scores, on the other hand, one obtains an easy to interpret quantification of each service attribute's

satisfaction-generating potential (SGP) and dissatisfaction-generating potential (DGP) which sum up to one.

5. RESEARCH RESULTS AND INTERPRETATION

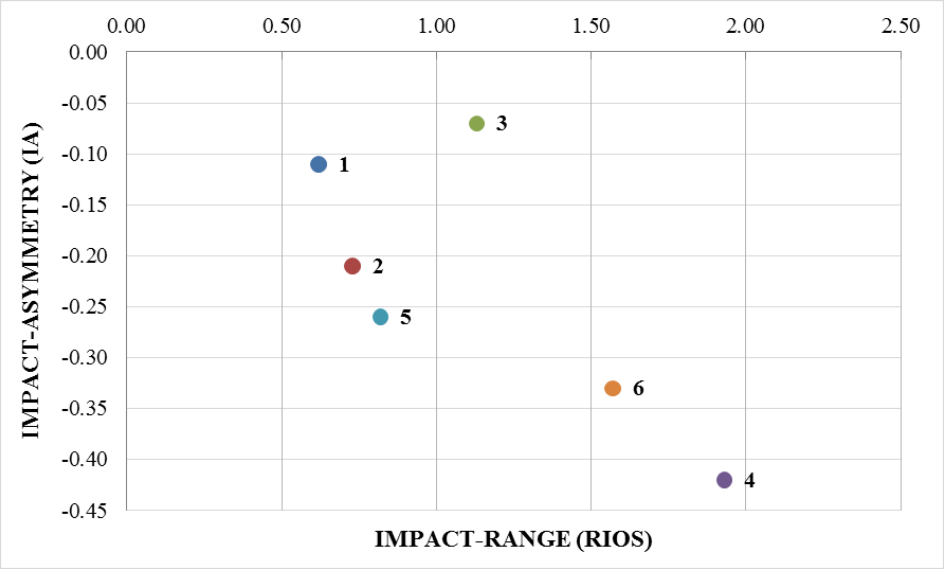
After questionnaires were collected from a total of 253 patients at the end of February 2017, an impact-asymmetry analysis was performed, which results are displayed in following Table 1 and Figure 2.

Table 1: **Results of the impact-asymmetry analysis**

Attribute	Penalty	Reward	RIOS	DGP	SGP	IA
1. Acceptability of prices	-0.34	0.28	0.62	0.55	0.45	-0.11
2. Honoring scheduled appointments and deadlines	-0.44	0.29	0.73	0.61	0.39	-0.21
3. Completeness of service program	-0.60	0.53	1.13	0.53	0.47	-0.07
4. Quality of product/services	-1.37	0.56	1.93	0.71	0.29	-0.42
5. Information availability about clinic and services	-0.52	0.30	0.82	0.63	0.37	-0.26
6. Staff professionalism and competence	-1.04	0.53	1.57	0.66	0.34	-0.33

Source: By the authors.

Figure 2: **Impact-asymmetry analysis for dental service attributes**



Source: By the authors.

The results of the IAA provide the following picture. One general finding is that all examined dental service attributes have a larger potential to create dissatisfaction than satisfaction, as portrayed by the negative impact-asymmetry (IA) scores. The 'completeness of the service program' (attribute 3) is the only attribute that could be referred as to a hybrid attribute, due to its rather balanced potentials to generate satisfaction (SGP) and dissatisfaction (DSP) and a respective IA score of -0.07. On the other end of the IA continuum, two attributes are located with rather strong and negative impact-asymmetries, i.e. 'quality of product/services' (attribute 4; IA_4= -0.42), and 'staff professionalism and competence' (attribute 6; IA_6 = -0.33). For these two attributes, negative patient experiences have a much stronger influence on the overall experience at the dental service clinic than positive experiences, why these attributes can be referred to as dissatisfiers (or even frustrators). If one further considers that these two attributes further emerge to have the highest scores of range-of-impact on overall satisfaction ($RIOS_4$=1.93; $RIOS_6$=1.57), then these results reinforce the importance of the core 'service ingredients', i.e. human resources and high quality of product/services, in achieving high levels of overall patient satisfaction. As it turns out, however, these attributes have a much stronger potential to ruin the overall experience than to delight patients, which is an important result for dental service clinic managers.

Noteworthy, the 'acceptability of prices' (attribute 1) emerged the least influential service attribute ($RIOS_1$=0.62) in this study, with relatively balanced potentials to enhance and penalize the overall dental service/clinic experience (IA_1=-0.11). This finding is interesting in the regard that price competitiveness of dental services is rather consensually being regarded as one of the key attractiveness factors of dental tourism destinations. As it turns out, however, while competitive prices certainly have a strong influence on destination and the choice of dental clinic, prices are no longer important determinants once the tourist has arrived to the destination. In this regard, it is important to communicate prices in a transparent manner to attract dental tourists, and to minimize or as well communicate potential 'hidden costs' in a transparent manner prior to the tourist's arrival.

CONCLUSION

Dental tourism, as a subset of medical tourism, is a relatively new phenomenon in developing countries like Croatia, Hungary or Poland, whose large cities are becoming increasingly popular destinations among tourists from developed European countries who combine dental care treatments with vacation. So far, millions of wealthy patients have been traveling cross-border for timely and more affordable dental care services. This study highlights Zagreb as an emerging dental tourism destination with modern high-tech dental clinics, supreme dental care services, and highly qualified medical staff with credentials, professional degrees and knowledge of foreign languages.

Since the dental tourism experience has so far been rather unexplored and neglected in the tourism research literature, this case study represents a preliminary attempt to better understand dental tourists visiting Zagreb. According to the survey findings, the two most important attributes that influence dental tourist satisfaction are the quality of dental care product/services and staff professionalism and competence, while the price

of the service and honoring schedule appointment have relatively weak influence on patients' overall experience related to dental care service delivery. Dental clinic managers should also pay attention to the completeness of dental care service programs and information about dental clinics and services they provide. Although the findings from this exploratory case study can be regarded representative for the analyzed dental clinic, a further stage of this research should include more dental clinics and international patients in order to get a closer insight of the entire dental tourism market in the city of Zagreb.

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