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The Effect of the COVID-19 Pandemic on Dental Tourism in Croatia

Abstract

Dental tourism is based on providing dental services outside the home country at more favourable prices but with added value in tourist offers and arrangements. Croatia has become a destination for affordable and at the same time quality dental tourism due to low prices, high quality, and natural beauties. In addition to dental services, most clinics offer transportation and accommodation. Dental tourists want to combine dental services with vacation, which makes Croatia a desirable destination precisely because of the natural beauty and abundance of rich content. For this reason, many Croatian dentists have recognized dental tourism as an additional source of income or as their primary business orientation. Although clinics operating within dental tourism are located throughout Croatia, the most significant number is in Zagreb, Rijeka, and Split. Patients mostly come from developed countries such as Italy, Austria, Germany, UK, Ireland, Japan, Canada, and the USA, where dental procedures are not as affordable. Dental tourism in Croatia had exponential growth until March 2020, when, for the first time, it faced a global problem and was challenged in the form of the COVID-19 pandemic.

Keywords: dental tourism, COVID-19, dental services, affordable price, Croatia

1. Introduction

As a form of medical tourism, dental tourism is based on providing dental services outside the home country at more favourable prices but with added value in the form of tourist offers and arrangements (Ivandić et al. 2014). The Republic of Croatia has become a destination for affordable and at the same time quality dental tourism due to low prices, high quality, and natural beauty. In addition to dental services, most clinics offer transportation and accommodation with the organization of excursions and other tourist services. Dental tourists want to combine dental services with vacation, which makes Croatia a desirable destination precisely because of the natural beauty and abundance of rich content. For this reason, many Croatian dentists have recognized dental tourism as an additional source of income or as their primary business orientation. Although clinics operating within dental tourism are located throughout Croatia, the most significant number is in Zagreb, Rijeka, and Split. Patients mostly come from developed countries such as Italy, Austria, Germany, Great Britain, Ireland, Japan, Canada, and the USA, where dental procedures are not as affordable (Gregorić et al., 2019; Jurišić & Cegur Radović, 2017). Dental tourism in Croatia had exponential growth until March 2020, when, for the first time, faced a significant challenge due to the COVID-19 pandemic and travelling restrictions. The first European country, Italy, was hit with devastating consequences and many casualties. As a result, arrivals of patients from Italy in Croatia were cancelled, and Croatian dental clinics, whose business is mainly based on Italian patients, were in danger of collapse. Arrivals of patients from other European

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countries, such as Germany, Austria, Slovenia, the United Kingdom, France, Belgium, Sweden, and overseas countries, such as Canada and the United States, were also halted. The recommendation of the Ministry of Health of the Republic of Croatia (2020), the Croatian Medical Association (2020a), and the Croatian Society for Oral Surgery (Croatian Medical Association, 2020b) followed in suspending work with Croatian patients except for emergencies. Due to the new situation, many dental offices and polyclinics were forced to close their businesses (Demonja & Uglješić, 2020).

2. Goal

This paper examines how much the new situation has slowed down the work, its consequences, and, most importantly, whether Croatia has the potential for further development of dental tourism.

3. Materials and methods

The research was conducted from March 2020 til June 2021 using an online survey questionnaire whose completion was voluntary and anonymous. The questionnaire consists of 17 questions, nine about the situation before the COVID-19 pandemic and eight about the situation during the COVID-19 pandemic. The pre-pandemic questions were connected to how long the owners of the clinic have been involved in dental tourism; in which part of the Republic of Croatia is their clinic located, how many employees do they have in general and of those how many are dentists, what is the average age of the employed dentists; from which country did most foreign patients come, do they employ a dentist in a foreign country who did the first examination and therapy planning for patients before they came to the Republic of Croatia and which marketing channel they usually use in the promotion of their practice in foreign markets?

Post-pandemic questions were about the general extent of work decreased during the COVID-19 pandemic and the period of work related only to the segment of dental tourism. Then, how many employees and dentists did owners have to fire because of the COVID-19 pandemic? In addition, the owners had to indicate which protective equipment dentists used in their clinic during the COVID-19 pandemic. They also had to answer whether the funds they invested in the marketing during the COVID-19 pandemic were higher than before. Finally, when do they expect their clinic's business to be normalized (return to the level before the pandemic) in the segment of dental tourism?

The survey questionnaire was distributed in May 2021 to the owners of clinics or contact persons employed in dental tourism throughout Croatia by e-mail. A total of 150 potential respondents were contacted. The obtained results were statistically processed and interpreted using Microsoft Excel 2010. The Ethics Committee of the Study of Dental Medicine, University of Zagreb, approved the research.

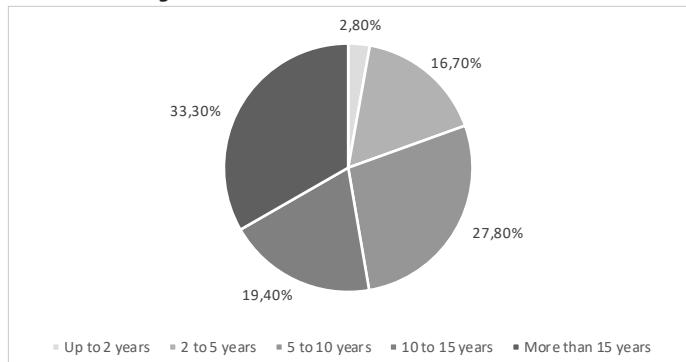
4. The results

The survey questionnaire was completed by 36 participants, which offered a response rate of 24%.

4.1. Pre-pandemic information about COVID-19

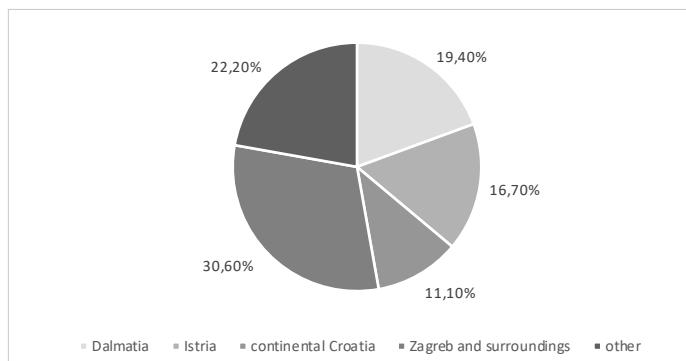
Dental tourism has been a part of business for more than 15 years for the most significant number of respondents (33.3%), while it is only in its infancy with 2.8% (Figure 1).

Figure 1
Period of dealing with dental tourism



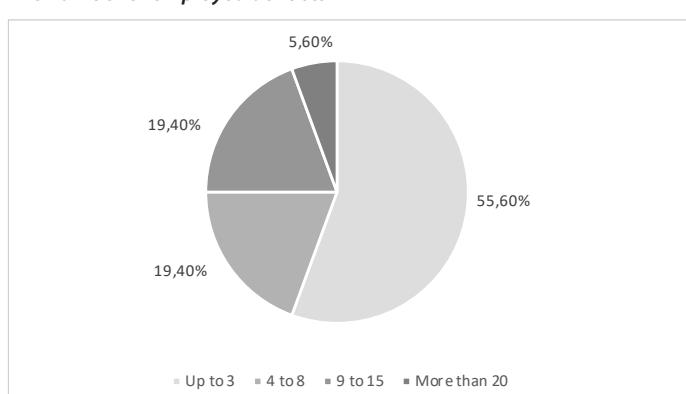
As expected, the largest number (30.6%) of clinics are located in Zagreb and its surroundings, while the smallest number is in continental Croatia, only 11.1% (Figure 2).

Figure 2
Location of the polyclinic in the Republic of Croatia



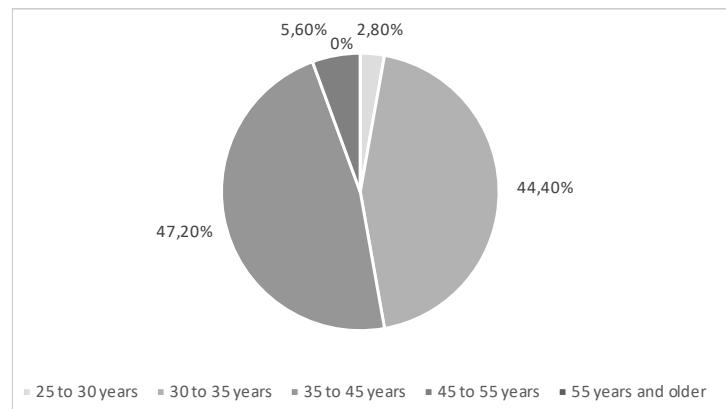
Such results are led by the notion of Croatia as a country of sun and sea and the centralization of the entire business, including the segment of dental tourism in Zagreb, with a significantly weaker tourist offer of the continental area. 55.6% of clinics have less than 3, while 19.4% have 4 to 8 or 9 to 15 employed dentists (Figure 3).

Figure 3
The number of employed dentists



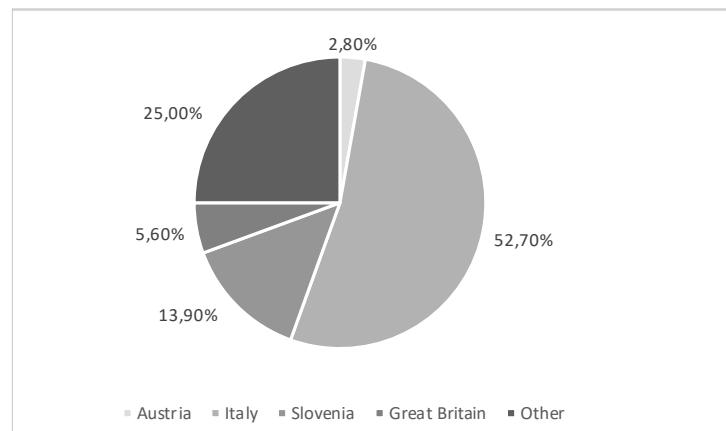
The average age of dentists is 35 to 45 years in 47.2% of cases; slightly less (44.4%) is a dentist from 30 to 35 years, while the least is those aged 55 and over (Figure 4).

Figure 4
The average age of dentists



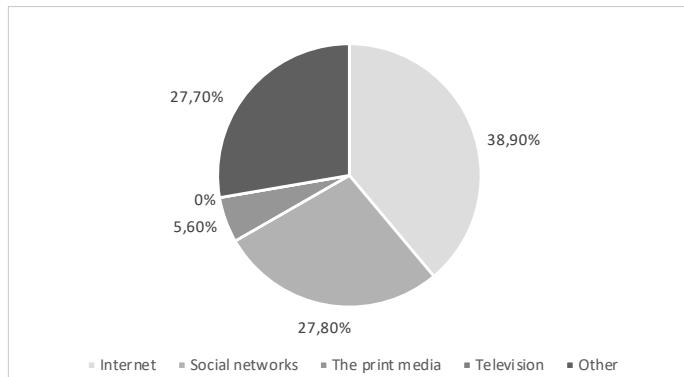
The country that has recognized the quality and richness of the offer of dental tourism in Croatia is undoubtedly Italy. The reason for this is primarily the extremely high prices of dental services of Italian dentists and good transport connections with Croatian dental tourism centres. As a result, Italians are the leading foreign patients in as many as 52.7% of clinics, followed by Slovenes, British, and Austrians (Figure 5).

Figure 5
The country from which foreign patients come



Regarding other engagements, 94.4% of respondents did not have a dentist hired in foreign countries who did the first examination or a treatment plan for patients before they came to Croatia, which is expected because such an undertaking would require additional financial expenses. Internet advertising as the leading marketing channel in the promotion of clinics in foreign markets is used by 38.9% of respondents, followed by advertising on social networks with 27.7%. In contrast, none of the respondents tends to advertise on television (Figure 6).

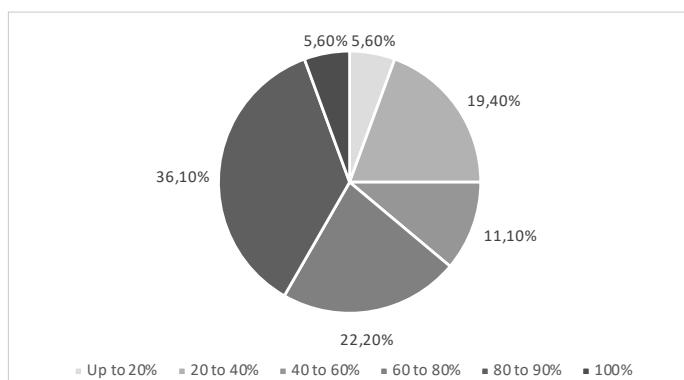
Figure 6
Marketing channel for promotion in foreign markets



4.2. Post-pandemic information about COVID-19

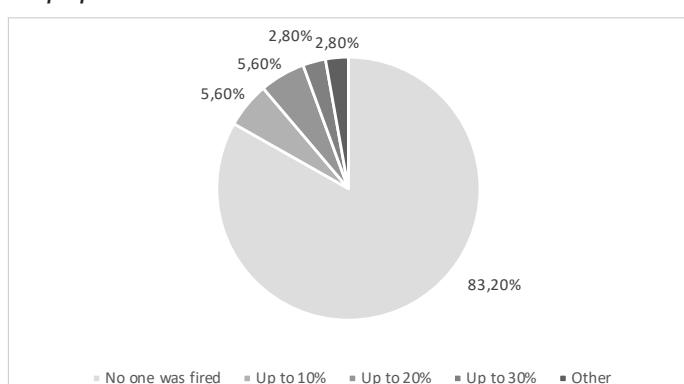
Considering the extent of work that refers to the segment of dental tourism, 36.1% of respondents claim that it has decreased by 80 to 90%, while 5.6% witnessed a complete business collapse (Figure 7).

Figure 7
The decline in the volume of work related to dental tourism



The decline in business has led to rigorous measures, indeed dominated by layoffs. However, judging by the research results, that number, fortunately, is not significant. Namely, 75% of respondents managed to keep all jobs, while 83.2% remained at the same number of dentists as before the pandemic (Figure 8).

Figure 8
The proportion of dismissed dentists



4.3. Changes in the clinic's operations to better cope with the economic crisis caused by the COVID-19 pandemic

To better cope with the economic crisis due to the COVID-19 pandemic, the owners of clinics had to make specific changes in their previous operations. The changes were primarily related to savings, which meant reduced employee salaries and delays in education and investment. Due to the reduced volume of work, many polyclinics decided to work one shift with additional days off. The savings focused on the marketing, logistics, and procurement budget to keep the staff full force. Also, Croatian patients were placed at the centre, and market activities and dental service prices were adjusted to the needs of the domestic market. Some owners have seen the salvation of business in the digitalization of work, automation of specific processes using software in the form of faster communication with patients, and introduction of a new methodology for setting and monitoring business goals. In addition, marketing activities in foreign markets remained active but with a reduced budget and a different approach before the pandemic. Some owners did not change their businesses but agreed to lower wages, but some were forced to adjust the number of employees to market conditions or close the office. The cost of doing business was also felt in the form of protective equipment because most dentists used visors, protective suits, protective caps, and shoe covers in addition to the essential masks and gloves to minimize the possibility of infection in the clinic. Most respondents (38.9%) believe that the funds they invest in marketing during a pandemic are smaller than before, while 13.9% do not tend to invest in marketing at all. It is encouraging that 41.6% of respondents expect that the current situation could be returned to the level before the pandemic in the next 12 months, but 5.6% of them believe that it will never happen.

5. Conclusion

Based on the research, Croatia has the necessary preconditions for further development of dental tourism. In the vicinity of surrounding countries where dental procedures are significantly higher, a high number of dental chairs, modern technologies and professional staff support this. The COVID-19 pandemic has impacted and decreased dental tourism's lucrativeness, leading clinics that solely depend on foreign patients close to bankruptcy. Many patients were forced to stay in their countries and seek dental care in local clinics. The leading clinics whose core work depended on foreign patients decreased the number of employees and reported significantly lower financial gains. Finally, booming dental tourism generally consists of high-quality dentistry, favourable pricing, and a rich tourist offer, alongside the inclusion of domestic patients in the core of business to ensure sustainability.

References

- Croatian Medical Association. (2020a). *Opinion of the Croatian Dental Association / CMA on treating patients in the dental practice during the COVID-19 pandemic*. <https://www.hlz.hr/strucna-drustva/misljenje-hrvatskog-stomatoloskog-drustva-hlz-a-opostupanju-s-pacijentima-u-ordinaciji-dentalne-medicine-tijekom-pandemije-covid-19>
- Croatian Medical Association. Croatian Society of Oral Surgery. (2020b). *Recommendations for treatment in the field of oral surgery during the COVID-19 epidemic*. <https://www.hlz.hr/strucna-drustva/preporuke-postupanja-u-djelatnosti-oralne-kirurgije-za-vrijeme-trajanja-epidemije-covid-19>
- Demonja, D., & Uglešić, N. (2020). Dental tourism and business risks: The example of the Republic of Croatia. *Interdisciplinary Description of Complex Systems*, 18(4), 425-445. <https://doi.org/10.7906/indecs.18.4.3>
- Gregorić, M., Sečan, M., Pomper, R., & Miklik, M. (2019). Prilike za razvoj poduzetništva u okviru dentalnog turizma u Hrvatskoj [Opportunities for the development of entrepreneurship in dental tourism in Croatia]. *Obrazovanje za poduzetništvo - E4E*, 9(2), 85-100. <https://hrcak.srce.hr/230578>
- Ivandić, N., Kunst, I., Telišman Košuta, N., & Marković, I. (2014). *Nacionalni program – Akcijski plan razvoja zdravstvenog turizma* [National program – Action plan for the development of health tourism]. Institute for Tourism, Zagreb.

Jurišić, E., & Cegur Radović, T. (2017). Dental tourism – An opportunity for Croatian tourism. *Interdisciplinary Management Research*, 13, 297-311.

Republic of Croatia, Ministry of Health, Crisis Headquarter. (2020) *Coronavirus (COVID-19) – Prevention of the spread of the disease: Organization of the work of dental medicine at the primary and specialist-consultative level of health care*. https://www.hkdm.hr/pic_news/files/Uputa-organizacija%20rada.pdf

Submitted: May 23, 2022

Revised: November 04, 2022

Accepted: February 03, 2023