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## Factors affecting dental services accessibility: a qualitative study

Dejavniki dostopnosti zobozdravstvenih storitev: kvalitativna analiza

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**Key words:** dentistry; accessibility; focus group; system stakeholders

Ključne besede: zobozdravstvo; dostopnost; fokusna skupina; sistemski deležniki

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#### **ABSTRACT**

**Introduction:** Access to dental services is a basic right included in the compulsory health insurance for patients and thus an important part of the healthcare system in Slovenia. The purpose of this research was to identify and explore the factors that have the greatest impact on the accessibility of dental services from the perspective of the system stakeholders in Slovenia.

**Methods:** A qualitative study was conducted based on the focus group method. The focus group consisted of relevant system stakeholders, namely two representatives of the regulator, provider and payer, a total of six participants. A thematic analysis was carried out in order to identify the patterns and themes within the qualitative data obtained.

**Results:** The results of the focus group revealed the views of system stakeholder on the accessibility of dental services in Slovenia. According to the system stakeholders' perspective, accessibility of dental services in Slovenia is not optimal and significant changes in terms of financing and organisation are required.

**Discussion and conclusion:** We found that the lack of adequate human resources, insufficient health insurance and payment for services are the crucial factors in providing adequate access to dental health in Slovenia. In order to increase its accessibility, the dental programme needs to be expanded and the number of teams for its implementation increased.

#### IZVLEČEK

**Uvod:** Dostopnost do zobozdravstvenih storitev je osnovna pravica iz obveznega zdravstvenega zavarovanja pacientov in je tako pomemben del zdravstvenega sistema v Sloveniji. Namen raziskave je bil ugotoviti in raziskati dejavnike dostopnosti, ki z vidika sistemskih deležnikov najbolj vplivajo na dostopnost zobozdravstvenih storitev v Sloveniji.

**Metode:** Izvedena je bila kvalitativna raziskava z metodo fokusne skupine V njej so sodelovali relevantni sistemski deležniki, in sicer po dva predstavnika regulatorja, izvajalca in plačnika – skupaj šest deležnikov. Uporabljena je bila tematska analiza, ki omogoča prepoznavanje vzorcev in ključnih tem na podlagi kvalitativnih podatkov.

**Rezultati:** Ugotovitve fokusne skupine razkrivajo stališča sistemskih deležnikov o dostopnosti zobozdravstvenih storitev v Sloveniji. Vidik sistemskih deležnikov nakazuje, da dostopnost do zobozdravstvenih storitev ni optimalna, zato so potrebne spremembe, še posebej z vidika financiranja in organizacije.

Diskusija in zaključek: Ugotovljeno je bilo, da so pomanjkanje ustreznega kadra, nezadostno zdravstveno zavarovanje in plačevanje storitev najpomembnejši dejavniki pri zagotavljanju ustreznega dostopa do zobozdravstvenega zdravja v Sloveniji. Da bi povečali dostopnost, je treba dentalni program razširiti in povečati število timov za njegovo izvajanje.

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#### Introduction

Accessibility is wholly dependent on system stakeholders, with each stakeholder representing their point of view. Accessibility is defined as the extent to which a consumer or user can obtain goods or services at the time when they are needed (Business Dictionary, 2017). While the definition of accessibility specifies in exact terms the meaning of accessibility, measuring and providing it remains difficult in practice (Evans, et al., 2013).

In Slovenia, the health care system is based on social health insurance. The principles of solidarity, non-profit and social justice apply (Resolucija o nacionalnem planu zdravstvenega varstva 2016–2025 [ReNPVZ16-25], 2016). Dental service accessibility in Slovenia depends primarily on the payer (the Health Insurance Institute of Slovenia) and consequently on the providers of services. Since due to payer's restrictions only a certain number of services paid by public funds can be performed by the provider, accessibility at no extra cost which would still meet the needs and demands of the citizens is difficult to provide (Albreht, at al., 2016).

Private health expenditure is higher in Slovenia than the EU average by almost 1 % (SL 27.8 %, EU 26.7 %), but more than half is covered from the system of supplementary health insurance. In the context of international comparison, these expenditures are relatively low; they stood at 12.6 % in Slovenia in 2016 and 21.8 % in the EU (Prevolnik Rupel, 2016). According to the World Health Organization (2012) recommendations, health expenditure is acceptable and does not jeopardize financial accessibility if it remains below 15 %. In expenditures structure, in Slovenia, the largest share, almost 60 %, is spent on medicines and medical devices, while dental services reach only 13 % of total health expenditure. The reason for inequality in health care in Slovenia cannot be attributed to financing; the financial system provides accessibility to the "basket of rights" fairly equally to the entire population and guarantees relatively low direct payments (Zver & Srakar, 2018).

Accessibility of dental services in Slovenia is influenced by several factors, which, according to the literature, can be divided into a financial factor (or availability of financial resources), regulation by law, human resources and the organisational factor (Albreht, et al., 2016).

#### Financial factor

A mixed model of payment is applied in dental practice; by the services provided, billed according to the Green Paper (Zdravstvena skupnost Slovenije, 1982) and according to the capitation, but to a predetermined extent, which is set annually under the contract of the Health Insurance Institute of Slovenia.

The Health Insurance Institute takes into account the number of persons identified from the previous year in order to calculate the capitation. The value is defined as the annual plan, according to which half of the programme represents the capitation and the other half represents the service system (Albreht, et al., 2016). The funds collected from various sources are essential for the organisation of dental services. The funds for the implementation of the programme are collected in the form of contributions from compulsory health insurance, supplementary health insurance and payments from one's own pocket (Prevolnik Rupel, 2016).

### Regulation by law

In Slovenia, access to health services is well regulated by law, which guarantees the rights and equity of services to all citizens, equally and according to their needs (Nacionalni program zdravstvenega varstva Republike Slovenije [NPZV], 2000; Zakon o Zdravniški službi [ZZdrS], 2006; Kiauta, et al., 2010). Despite a well-regulated system, due to unclear provisions of secondary legislation and inadequate solutions in the implementation and provision of dental service accessibility, waiting times and unmet needs are of frequent occurrence in practice. The main reason is the definition of the "basket of rights" (Zavod za zdravstveno zavarovanje Slovenije [ZZZS], n. d.). By means of the "basket of rights", the Health Insurance Institute provides a considerable variety of dental services, which, due to their wide range, are not all accessible and, in practice, need to be limited by various instruments, such as the number of dental teams and the number of services provided. The Health Insurance Institute and the Ministry of Health are responsible for the network of dental service providers in Slovenia. The Health Insurance Institut concludes contracts with individual providers of health services, and these contracts serve as the basis for the financing of the programme implemented by the providers (Zakon o zdravstvenem varstvu in zdravstvenem zavarovanju [ZZVZZ-NPB25], 2006).

#### Human resources

The data on the number of all dentists and teams which provide dental services in Slovenia is managed by the Health Insurance Institute and the Medical Chamber of Slovenia as an expert body. According to the Health Insurance Institute, in 2014, a total of 946.67 teams (ZZZS, n. d.) were responsible for the implementation of the programme for 2,041,690 insured persons. According to the data of the Medical Chamber of Slovenia, there were a total of 1,242 dentists with a valid license registered in their records as of 1 August 2017 (ZZZS, n. d.). The conditions for awarding a concession are defined in the Health Services Act (Zakon o

zdravstveni dejavnosti - 1 [ZZDej-1], 2005). This act lays down the rules for performing public health care services under concession contracts (ZZDej-1, 2005).

### Organisational factor

In order to ensure effective organisation of dental services, legal factors and the legislation regulating the field of health insurance and defining the principles of health care are equally important. In Slovenia, Bismarck's health insurance system has been established, with compulsory health insurance being one of its features. The organisation of primary care services falls within the competence of local communities through granting concessions and organising a public network of health service providers. The scope and implementation of the programme are the responsibility of the Health Insurance Institute by means of an annual sectoral agreement with all service providers (ZZVZZ-NPB25, 2006, article 63).

#### Aims and objectives

The purpose of this study was to identify and explore the factors which have the most impact on the accessibility of dental services from the perspective of the system stakeholders. The first objective was to provide an overview of the accessibility of dental services in Slovenia. The second objective was to explore accessibility factors such as availability of finances, regulation of dental services, human resources, and the organizational factor. The last objective was to explore the accessibility of dental services.

We formulated three corresponding research questions:

- How do system stakeholders understand the accessibility of dental services?
- What factors determine the accessibility of dental services in Slovenia from the perspective of the system stakeholder?
- What is the current situation in terms of dental service accessibility?

#### Methods

This research uses a qualitative research methodology, namely the method of collecting data through a focus group. A group of people or experts are invited to discuss a topic, known in advance, and their conversation progresses according to a specific plan (Masadeh, 2012).

The focus group method is primarily intended for structured discussions among a small group of participants run by the moderator. Its aim is to gather qualitative data on a focused topic through the use of a set of open-ended questions (Masadeh, 2012; Nagle & Williams, 2013). Focus groups are used to "provide insights into how people think and provide

a deeper understanding of the phenomena being studied" (Nagle & Williams, 2013). The accessibility of dental services is a very focused and narrow topic, and the focus group method allowed researchers to explore in more depth the perspectives of the system stakeholders.

#### Description of the research instrument

A focus group template was used as the research instrument. The template included a schedule and the procedure of conducting a focus group. The focus group started with an opening in which the moderator made an introduction to the discussion of the topic and proceeded with four open-ended questions. The questions were formulated by the researchers through an iterative process of refinement (Rosing, et. al., 2019). This means that the questions were prepared in accordance with the literature review and then reviewed by an independent researcher, an expert in healthcare. The questions were time-framed for 15 min each. Four questions were posed to all representatives of stakeholders as follows:

- 1. How do you understand (define) accessibility in general?
- 2. What are the most important factors that affect accessibility to dental services from the perspective of the system stakeholders?
- 3. How is accessibility to dental services provided through different factors (regulation, organisation and financing, distribution of the network service providers)?
- 4. Express your views on the current access to dental services ("basket of rights", the current waiting times).

Finally, following the discussion, the focus group session was closed with the concluding remarks on the topic discussed. The discussion was recorded and then analysed by the researchers, using the thematic analysis method. The thematic analysis is an unstandardized technique, which enables researchers to distinguish between different opinions, beliefs and standpoints of participants (Masadeh, 2012) and to therefore gain a deeper understanding of the research topic.

### Description of the sample

The factors determining the level of accessibility of dental services in Slovenia were examined among the relevant system stakeholders. Data was collected from six representatives of the system stakeholders, experts of dental services provision who are accountable for accessibility. Two participants were representatives of the regulator (REG) and came from the Ministry of Health, one participant was a representative of the Medical Chamber, one a representative of the Dental Prosthetics Association as the provider (PRO), and two representatives came from the Health Insurance Institute as the payer (PAY), meaning a total of six

representatives. The sample was purposive because it enabled collecting opinions and perceptions of this social phenomenon through a target population whose experience is invaluable for research.

All representatives occupied a managerial (leadership) position in their institution at the time of data collection and were therefore familiar with the issue of accessibility of dental services at the system level.

Description of the research procedure and data analysis

A five-stage protocol was used to facilitate the focus group method (Nagle &Williams, 2013): first stage: defining the study purpose; second stage: conceptualisation and planning; third stage: facilitating the session; fourth stage: data analysis; and fifth stage: reporting.

In the first stage, the topic of discussion was set with the help of literature review and the research focus on the accessibility of dental services was agreed upon.

In the second stage, conceptualisation and planning was outlined. The researchers first agreed on selecting the target group and then prepared the questions related to accessibility of dental services. The planning activities involved setting the time and place of the session. Two representatives of three mayor stakeholders were asked to collaborate in the focus group. Each participant agreed to collaborate. After the consent for participation was obtained, the participants were acquainted with the topic of discussion, and time and place of the focus group. The participation of the representatives of the system stakeholders was voluntary and confidentiality of the participants was ensured.

In the third stage, the focus group was implemented among the intended participants on April 2018 during the time of the MEDICAL fair in Gornja Radgona, Slovenia. Data collection took place on the site. The process of data analysis also began during the data collection. Unlike quantitative analysis, qualitative analysis, particularly focus-group analysis, occurs concurrently with data collection (Rabiee, 2004, p. 657). The moderator who led the session posed the pre-prepared open-ended questions and encouraged the participants to participate in the discussion by giving each participant a chance to speak their mind. The main researcher took notes and observed the discussion (non-verbal conversation and group dynamics). During the discussion, the participants answered the open-ended questions and expressed their perspectives. The entire session lasted 1 hour and 47 minutes. The conversation was recorded, and the recording was stored on a record file as a transcript, complemented with the observation notes.

In the fourth stage, data analysis took place. First, the researchers familiarised themselves with the qualitative data. Records of the focus group transcript and observation notes were read carefully several times. During this process, the major categories were beginning to emerge, similar to the defined broader framework. Next, the data was coded and analysed through a thematic analysis of the transcripts by two researchers. The two researchers independently coded the transcript, using a thematic analysis of the data collected.

Each participant was coded in the analysis stage according to the role they represented. REG1 and REG2 were both female representatives of the regulator (Ministry of Health). PRO1 and PRO2 were both male representatives of the provider (Medical Chamber). The last two participants were representatives of Health Insurance Institute (payer), PAY11 was male and PAY2 was female.

In the coding process, the identification of the themes was performed by highlighting the text and writing short phrases and memos in the margin of the text. At this stage, descriptive statements (themes and codes) were formed under each of the questions posed. In the next step, the categories were charted and named and the quotes were lifted from the original context and re-arranged under the newly developed categories. Through this approach, the amount of data was reduced by means of cutting and pasting similar quotes together. Next, the quotes were once again reviewed to make sure they fitted into the categories and reflected the opinions of each stakeholder. During the coding, three categories emerged on which both researchers agreed upon.

The fifth stage comprised interpretation and reporting. Interpretations were produces by taking into account the actual words and meanings, the intensity of comments and specificity of comments for each category, while the frequency of responses, extensiveness and main points of the comments were not used as the main criteria. The findings arising from the thematic analysis were then reported according to the identified categories including quotes for each stakeholder.

#### Results

Results of the focus group discussion were organised according to the identified categories: (1) accessibility definition, (2) accessibility factors, and (3) provision of dental service accessibility.

Category 1: Definition of accessibility of dental services

The first question under discussion was the definition of the concept of accessibility as perceived by different stakeholders and reflected in the first research question. This category reveals how dental service accessibility is understood by the stakeholders and what they think accessibility should be. The complexity of the term "accessibility" is reflected in the

various perceptions and meanings of the stakeholders. The REG1 defined accessibility with the following response:

Health is a complex matter, which is regulated by several laws. In this abundance of laws, finding accessibility to dentistry has proven complicated. The Health Care Act and the Health Insurance Act are laws based on which the rights to health insurance are determined. In the current 1992 law, rights from compulsory health insurance, including the rights to dental services, are laid down in the Compulsory Health Insurance Rules.

The regulator understands the accessibility of dental services from a broader health perspective and from the legal perspective. The Health Insurance Act specifies the legal provisions for health accessibility. However, the payer argues that access to dental services is the right of every insured person. PAY1 claimed:

Access to a dentist is the right of an insured person, but it is an indirect right, meaning that the dentist determines whether the service is necessary or not, and only then provides it.

The payer states that accessibility is the result of supply and demand, which can be divided into three aspects: the structure and distribution of the network providers, payment and the "basket of rights".

PRO1 defined accessibility from the patient perspective:

For patients, accessibility means that they have a place where they can access dental services within a reasonable period of time, at least during the period within which they can be provided with quality and professional appropriate treatment.

PRO2 added:

In any case, a good network of teams and a sufficient number of providers are essential to accessibility.

The provider's perspective reflects an understanding of accessibility, particularly in terms of the number of dental teams performing the dental practice. The regulator and provider share a similar opinion on the annual programme and availability of dental teams. At the same time, they find that, in order to increase accessibility, the programme needs to be expanded and the number of teams for its implementation increased. However, accessibility is taken for granted by the regulator, since the legislation in this area is well regulated, and the rules determine details of dental service accessibility. The payer claims that the right to accessibility is the right of every insured person and that the patient obtains accessibility to the service only when the selected dentist orders it with the payer. This decision is made according to the set of "basket of rights". The nature of the service may or may not be covered by the insurance company.

### Category 2: Accessibility factors to dental services

The second category focuses on the accessibility factors of dental services. The most important factors identified were: the financial factor, human resources and organisation of dental services. The findings are reported according to each identified factor.

First, the financial factor, which was stated to be the most important. The regulator claims that the health care financing system, including dental services, does not make dental services accessible by means of public funds only, and questions the voluntary nature of supplementary insurance, by which he recognises that the insurance system regulation is lacking.

REG1 claimed, and REG2 agreed:

The 1992 law provides for the coverage of all compulsory health insurance services, but today we are at a point where no health services are provided solely from compulsory health insurance, except for urgent matters, pregnancy, childbirth and similar, as defined by the law. No other services can be provided without supplementary insurance.

PAY1 only commented on the annual budget data:

The Institute allocates 2.7 % of its annual budget for dentistry, which means that the programme costs of about  $130.000 \in$  are allocated for the provider's programme. The amount of rights in the basket of services has increased as well.

While PRO1 determined a barrier to performing their work, namely one resulting from financial constraints:

The payer only pays a certain number of hours for the provision of dental services, and the services are timenormalised.

Providers have a clear counter-opinion regarding the financial factor, as the profession argues that the expansion of rights reduces access to dental services through existing programmes. A more extensive range of services prevents patients from enjoying basic access to dental services.

The regulator clearly recognises that the health insurance system is not set correctly and that private funds are necessary to ensure accessibility to dental services. Also, the payer's aspect is only of accounting nature and looks at the provision of programmes exclusively from the point of view of its budget, and not from the perspective of the needs of the people. It does not question the eligibility and cost-effectiveness of the basket, the quality of services and contract partners, but the total volume of dentistry funds. The opinion of providers is mostly overlooked, and the participants speak without being heard. The providers are on the right track, seeing that the set of services is too large and the rights too wide-ranging, which in practice prevents accessibility.

The payer believes that the programmes receive sufficient means to ensure sufficient accessibility. The regulator contends that basic health insurance is not enough to cover all accessibility parameters, and therefore, supplementary health insurance is required. The programme providers argue that the payer pays the temporal effect of the dental team and reduces accessibility to services by extending rights. The providers are also concerned about the eligibility of using separately chargeable material, which the payer believes is not a major concern as they provide sufficient control.

Nevertheless, providers are trapped in the norms of productivity and time standardisation and do not go beyond the fact that it is necessary to start talking about the outcomes of treatment and the effectiveness of services. If services are of good quality and well supplied, and if prevention is guaranteed, there is also less need for dental services. The fundamental problem, such as the definition of the "basket of services" according to the criterion of quality and efficiency, was ignored by all the main stakeholders in the system.

In addition, PRO2 added a comment on the material expenses:

There is no control over how much material is used which is paid by the insurance company.

PAY 2 replied:

Control over separately chargeable materials does exist.

Next, human resources and the organisation of dental services were also mentioned as two most important factors. Both factors intertwine and interlink, so opinions and responses about these factors are somehow related.

REG2 expressed her opinion on dental services personnel and organisation by saying that

Realisation of the adult dentistry programme was 131 %, 134 % for juvenile dentistry and 153 % of the planned annual programme for dentistry for students. This basically means that less available programmes make them less accessible.

PAY1 stressed:

We have increased the organisation of dental services in the country by 24 dental teams.

REG1 elaborated that:

The EU provides access to 72 dental teams per 100,000 inhabitants, whereas in Slovenia only 68 dental teams are available per 100,000 inhabitants, those without concessions included. There are only 50 programmes provided by the payer in Slovenia; in other words, that is 22 dental teams less than the EU average.

In addition, PRO1 noted:

According to the expert assessment of the Medical Chamber in Slovenia, 500 dental teams are missing in order to ensure optimum access to dental services.

According to REG1, the following numbers illustrate human resources data in dental services in Slovenia:

Currently, there are 1.560,000 patients or 76 % of the population, which is 1,622 persons per dentists on average, treated by 961 teams or programmes paid by the institute. The regulator with annual realisation higher than that foreseen, emphasised that the existing number of programmes did not suffice to ensure better accessibility. However, this also raises the question of whether the annual plan is realistic at all and what number of programmes would ensure optimal accessibility. The payer responded to the complaints of the providers stating that they had increased the organisation of the service in the country by 24 teams. However, this response does not show the real picture, as we do not know how many teams are needed to ensure optimum accessibility, which PAY1 confirmed by saying:

There has been no national study conducted which would reveal the actual need for the number of teams providing dental services.

Statements on the personnel structure and the organisation of the dental teams' network is fundamental. The provider agreed with the regulator, who argued that there was a great need for dental teams in Slovenia. However, even providers did not have solid proof of personnel needs in order to provide maximum accessibility; the critical issue is if there even are enough human resources available in Slovenia in order to cover the needs advocated by the profession. The payer acknowledged that over the past 20 years, no credible information on personnel had been made available, but at the same time claimed that only 24 teams had been added to the public network. The providers were of the opinion that more dental teams would ensure better accessibility.

#### *Category 3: Provision of dental service accessibility*

The last category corresponded to the third research question on the current provision of dental service accessibility. The respondents commented on the "basket of rights", the set of services, and the current waiting times. Only PAY1 and PRO1 provided their insight on the current set of dental services.

PAY1 stated that:

We must first determine what people need, and PRO1 stated:

By expanding rights in the basket, we restrict access to existing programmes.

Since the "basket of rights" is essential for ensuring accessibility, the regulator as the primary system stakeholder guiding the health policy and defining the scope of the basket, did not answer this question. The payer commented on the "basket of rights" in complete opposition to its role, as the payer should be focused more on the quality and efficient services they provide and pay for. The position of the provider was clear; as he stated that accessibility is lower due to the expanding rights with the same human resources available.

Next, the most pressing issue in the current provision of dental service accessibility was identified, i.e., the waiting times. Participants listed several factors that influence the waiting times.

#### The PAY1 claimed:

Waiting times are the result of the need for dental services as the first factor, the second factor is the workforce and its elasticity, and the third is the capacity to finance. There is no country in the world without waiting times.

The REG1 noted that:

Accessibility is not correctly measured at the moment, the right criteria being human resources, the number of services and the quality of services.

The PRO1 expressed their opinion on waiting times by claiming:

We have several access points, which are definitely related to financing the set of services. The worst situation is in the field of specialist activity, as there are too few specialists in the network. In general dentistry, however, waiting times are quite different at the moment, depending on the provider, but several months as a general rule.

The PRO2 added:

The current dental service system does not allow for optimal accessibility. Placing dental services on the free market would increase accessibility. But then there is the need to replace the supplementary insurance system with a more effective insurance system, meaning that you pay as much as you get.

The system stakeholders commented on the positions concerning waiting periods as expected. The payer claimed that waiting times depended on the needs, workforce and funding. The regulator argued that the reasons for long waiting times lied primarily in human resources, people's needs and the number of services provided, while emphasising that accessibility is not measured with the right parameters. The provider drew considerable attention to the waiting times but neglected the fact that their expert chamber is the one that calls for specialisations and takes care of the education programme, making them partly responsible for long waiting times.

#### Discussion

The present study aimed primarily at determining the accessibility of dental services and accessibility factors from the perspective of the system stakeholders. This research revealed that system stakeholders provided different interpretations of dental service accessibility, interpreting it in the frames of their jurisdiction. Dental services are well regulated by the Rules on Compulsory Health Insurance (Pravila obveznega zdravstvenega zavarovanja, 1994) and Health Care and Health Insurance Act (Zakon o zdravstvenem varstvu in zdravstvenem zavarovanju [ZZVZZ], 2006), however the current conditions indicate that the providers do not meet the regulatory obligations (Medical Chamber, 2018). The perspectives of the system stakeholders show that accessibility to dental services in Slovenia is not optimal, and a significant reform of the health

sector is required. Regulatory changes in dentistry seem to be necessary to respond to the growing dissatisfaction among the providers of dental services. A joint collaboration and communication between the system stakeholders is needed to make the necessary changes and move on to ensuring better accessibility to the dental care system (Rosing, et al., 2019).

The most relevant accessibility factors in the Slovenian context are the financing of dental services, human resources and organization of dental services. Several independent research results confirm that the identified factors influence accessibility to dental services the most and, consequently, also affect patients' satisfaction (Mitts & Hernández-Cancio, 2016; De Gutierrez, et al., 2018; McKernan, et al., 2018, Rosling, et al. 2019). In Slovenia, the accessibility of dental services depends primarily on the payer and consequently on the providers of services. The system of mutual health insurance does not provide for optimal accessibility, as the expansion of rights in the underlying basket reduces accessibility in terms of longer waiting times due to the lack of human resources. The conclusions generated by the European health questionnaire confirm our findings that residents in Slovenia are quite dissatisfied with access to dental services when considering the waiting times (Albreht, et al., 2016).

The scope of the programme provided by the payer seems to present a problem as well, as it limits the providers in implementing several services (Medical Chamber, 2018). The providers argue that suspending concessions and changing the system will increase dental service accessibility, while the regulator has not made this claim and the payer believes that this is a change to the system. However, it is clear that regulatory changes would affect the payer's capacity to bear the costs of dental services.

In literature, we can find examples of how barriers and individual factors influence accessibility in dentistry and, consequently, patients' satisfaction. Providing access to dental care to the majority of the population is a challenge, as "those who need dental care the most are often the least likely to receive it" (Bersell, 2017). The lack of appropriate personnel carrying out these activities, inadequate insurance to cover the costs and inability to pay for services are the most significant factors that shape the accessibility to dental services (Mitts & Hernández-Cancio, 2016; Bintabara, et al., 2018; De Gutierrez, et al., 2018; McKernan, et al., 2018;). Socio-economic barriers, distance, health literacy of the population and distrust in the health system are also essential factors (Mitts & Hernández-Cancio, 2016; Yuen, et al., 2018a, 2018b). Financial constraints are mentioned as the most crucial factor affecting dental service accessibility, while other factors vary in importance in terms of geographical position and demographic groups (Prevolnik Rupel, 2016). Similarly, this research also demonstrated that the most important factor is the

financial one. The results of a descriptive study with a multi-stage sampling of access to oral and dental care show that accessibility, high cost of services, insufficient coverage of health insurance costs and excessive distance from the health institution are the main reasons for patients' dissatisfaction (Eslamipour, et al., 2019). Also, a multisite cross-sectional study of secondary data in Brazil finds that social inequality and a smaller proportion of dentists per capita reduce accessibility and thereby increase the likelihood of adult dissatisfaction with dental services (Lima Carreiro, et al., 2018). Legal factors (regulation) are connected with the accessibility of dental services; therefore, it can also be concluded that countries with a well-organised health system and well-organised primary health care have only minor differences in the waiting times and use of health services, also from the point of view of the acquis (Starfield, et al., 2005). A comparison of the system stakeholder's perspectives in Slovenia with other studies reveals that accessibility factors are similar worldwide. All health systems identify the lack of adequate personnel, insufficient health insurance and the payment of services as the most critical factors in providing adequate access to health. We may conclude that our findings support the work of other scholars.

Further research should be carried out using other quantitative and qualitative research methods in order to explore the accessibility of dental services in greater depth among other stakeholders such as individual providers and users (patients). Through interviews performed among the dental service providers, it would be useful to gain an in-depth understanding of the concept (of dental service accessibility and to identify other factors that influence access to dental services in Slovenia. Through a survey conducted among users of dental services, it would be useful to explore the satisfaction level and the perception of the importance of specific accessibility factors of dental services as well as to obtain users' overall assessment of dental service accessibility.

In terms of research limitations, it should be noted that this research highlighted the most common accessibility factors as stated in the reviewed literature. We are aware that interconnections between individual factors may exist, but due to the complexity of the topic investigated, we have not addressed them explicitly. Therefore, no interdependence or cause-effect associations between individual factors of dental service accessibility were investigated. As an essential limitation, access to relevant literature should be highlighted, as databases and literature on accessibility are relatively scarce and the relevant data are difficult to obtain.

Compared to other methods, the focus group method is perceived as more effective and less resource-intensive when gathering qualitative data (Masadeh, 2012; Nagle & Wiliams, 2013); however, it can be more complicated and time-consuming when

analysing and interpreting the data (Masadeh, 2012). A further limitation of focus groups is the small size of the sample, which may not be representative and its findings cannot be generalised to the entire population (Masadeh, 2012). Despite these limitations, this research is novel in its focus on accessibility factors, as it is the first study to explore the perspectives of system stakeholders (regulator, payer and provider) in Slovenia. The focus group approach allows for an in-depth exploration and comparison of the opinions, beliefs and standpoints of the system stakeholders.

### Conclusion

This research provides a system stakeholder perspective on the accessibility factors of dental services in Slovenia. The findings revealed the most important accessibility factors of dental service being: a lack of human resources, insufficient financing and organisational issues of dental services. We can conclude that access to health (dental) services is a rather pressing issue in other countries as well. We found that all societies confront similar barriers when it comes to ensuring accessibility, and we identified accessibility factors as important inhibitors of the health system. System stakeholders in Slovenia mostly view the accessibility of dental services according to their respective role. The regulator and provider show the most similar view on the accessibility of dental services in general. Our comparison identified the weaknesses in the dental service practice, thus making room for the opportunity to rethink and develop a more accessible and higher-quality dental service in the future.

# Conflict of interest / Nasprotje interesov

The authors declare that no conflicts of interest exist. / Avtorji izjavljajo, da ni nasprotja interesov.

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# Ethical approval / Etika raziskovanja

The study was conducted in accordance with the Helsinki-Tokyo Declaration (World Medical Association, 2013) and the Code of Ethics for Nurses and Nurse Assistants of Slovenia (2014). / Raziskava je pripravljena v skladu z načeli Helsinško-Tokijske deklaracije (World Medical Association, 2013) in Kodeksom etike v zdravstveni negi in oskrbi Slovenije (2014).

# **Author contributions** / Prispevek avtorjev

All authors contributed an equal share. The first author prepared the outline of the article, carried

out the research and analysed qualitative data. The co-authors contributed to the preparation of methodology, analysing of results, presentation of the results, and the discussion. / Avtorji so sodelovali enakovredno. Prvi avtor je pripravil osnutek članka, izvedel raziskavo in analizo kvalitativnih rezultatov. Soavtorja sta sodelovala pri pripravi metodologije, analizi rezultatov, predstavitvi rezultatov in diskusiji.

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