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Review Article

Public Health Section

A Narrative Review on Factors Affecting Access to Oral Health Services in Türkiye

ONUR BAYRAKCI[1], DUYGU KALKAY[2], HAZEL CELIK GUZEL[3]

ABSTRACT

Oral health is an essential public health problem directly affecting people's general health and quality of life. Rates of utilisation of oral health services in Türkiye are affected by various factors such as people's socioeconomic status, geographical location, and ease of access to the health system. Low income, inadequate education, and lack of health insurance in private sector coverage are the main barriers in accessing oral health services. Socioeconomic inequalities affect people's utilisation rates of oral health services and regular care habits, leading to both treatment delays and higher health costs. Increasing preventive oral health awareness and addressing the relationship between access to oral health services and social and economic factors are critical for developing sustainable policies to improve individuals' quality of life and reduce health inequalities. In recent years, Türkiye has confronted significant challenges with elevated inflation and unemployment rates. These factors have substantially constrained access to healthcare services. Presently, Türkiye ranks sixth with the highest inflation rate globally. This review aimed to analyse the access to oral health services in Türkiye and the factors affecting this access. In addition, solutions to reduce existing inequalities are presented.

Keywords: Health services, National health policies, quality of life, Socio-economic factors

INTRODUCTION

The World Health Organisation (WHO) emphasises that oral health is not just about having healthy teeth but also about the overall well-being of the oral cavity and facial structures. It extends to the absence of pain, diseases, and conditions that could impact critical functions like eating, speaking, and even social interactions [1]. This approach highlights the connection between oral health and quality of life. Proper care, awareness, and access to dental health services play a huge role in maintaining this balance. Its high prevalence, negative impact on general health and quality of life, and high treatment costs make oral health a global priority.

A healthy mouth is one of the leading indicators of overall health and quality of life. Infections in the mouth affect this area, and toxic bacteria enter the bloodstream and threaten the body's health. Research shows that in people with gingivitis, the risk of diabetes, cardiovascular diseases, atherosclerosis, respiratory system diseases and some types of cancer increases [2,3]. A study by Cicciu M et al., has also identified the presence of bacterias responsible for periodontal diseases in the brain tissue of Alzheimer's patients. This finding suggests that periodontal disease agents may spread to the nervous system [4]. These findings reveal that oral health is closely related to the whole body's health.

In 2017, it was reported that there were 3.5 billion cases of oral disease worldwide, most of which were due to untreated caries on permanent teeth, severe periodontitis and tooth loss [5]. Generally, oral health factors can be divided into modifiable and non-modifiable factors. Modifiable factors include individual behaviour and lifestyle choices such as unhealthy diet (exceptionally high sugar consumption), tobacco use, excessive alcohol consumption and poor oral hygiene. These factors can be reduced or modified by appropriate interventions. On the other hand, non-modifiable factors include socioeconomic and environmental conditions, low education levels, unemployment, and limited access to clean water and health services. These external factors, which individuals cannot directly control, are determinants that have a lasting impact on oral health [6].

The behavioural model developed by Andersen can explain people's use of health services. According to this model, three main categories determine health service utilisation: preparatory factors (such as demographic characteristics and social structure), facilitating factors (such as income level health insurance) and need factors (such as an individual's perception of health status). The model evaluates the individual's healthcare access behaviour under the influence of these factors [7]. The present review aimed to assess the access to oral health services in Türkiye, the social and economic factors affecting it, and suggestions for reducing existing inequalities.

Relationship of Utilisation of Oral Health Services with Social Factors

Historically, there has been a transition in the structure of health services from a medical model based only on health to a social model emphasising the community and human model [8]. Oral health is essential to physical and mental well-being and influences people's values, attitudes and life experiences. It has physiological, social and psychological effects on quality of life and can change according to personal experiences, perceptions and expectations [9]. The most important social factors affecting oral health can be listed as follows:

Cultural norms and values: Cultural norms and value systems also shape oral health. Researchers state that society's beliefs about oral health may be more effective than the services provided. Social, cultural, and belief-based factors guide individual health practices and influence preferences such as nutrition, dental hygiene, and home treatment, which affect oral health [10]. A recent study indicated that 62.1% of individuals in Türkiye seek dental care solely when necessary. Furthermore, only 58% of the population reports brushing their teeth twice daily, and 50.4% utilise dental floss, toothpicks, or mouthwash [11]. Another study focusing on children aged 7 to 14 revealed that dental erosion was present in 21.8% of this demographic [12]. These statistics suggest a significant inadequacy among parents in promoting awareness of oral and dental health among their children. Moreover, individuals who do not receive early education on this subject are likely to continue unhealthy habits throughout their lives. Additionally, cultural practices lead some individuals to prefer miswak over conventional toothbrushes and toothpaste. Although miswak can yield certain positive effects, such as reducing dental plaque, preventing harmful microorganisms, and

increasing saliva flow, it is insufficient for effectively cleaning the proximal and lingual surfaces of the teeth. Therefore, while miswak may serve as a complementary oral hygiene tool, reliance on it alone fails to deliver adequate oral healthcare [13].

These findings underscore the imperative need for a comprehensive educational and awareness-raising program aimed at enhancing individual understanding and practices related to oral and dental health in Türkiye.

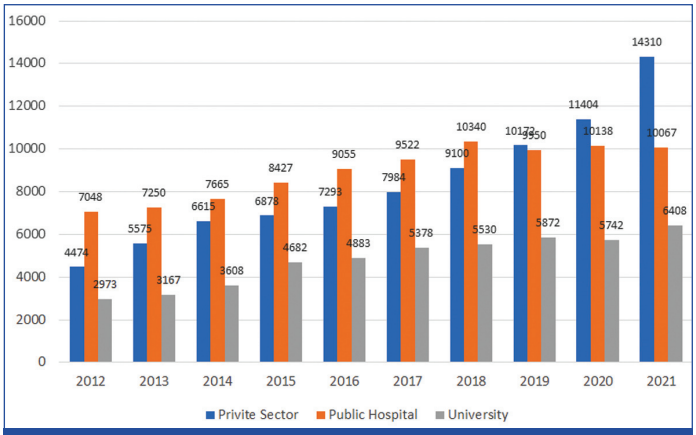
Income and working conditions: Treatment costs for oral diseases are high and generally not covered by universal health insurance. Since many factors affecting oral health constitute an economic burden, they are closely related to income status. Individuals with higher incomes generally have better oral health, can benefit from regular dental care services and have easier access to dental treatments. On the other hand, a lack of financial resources can disrupt the receipt of regular dental checks and other oral health services [14].

Food and nutrition: A balanced and healthy diet is essential for oral and dental health. There are complex interactions between nutrition and oral health, and good nutrition is critical in preventing tooth decay, gum disease, and other oral health problems. In particular, vitamin and mineral deficiencies can weaken oral tissues and make them susceptible to infections. In addition, habits such as heavy alcohol consumption and smoking are known to affect oral health adversely [15]. High consumption of sugar, sweets, salt and carbohydrates, tea drinking habits and smoking are among the dietary and living habits that adversely affect oral health in Turkish society. Sweets and sugar have an important place in Turkish cuisine.

The consumption of sweets and sugar during the Ramadan Feast (Sugar Feast), melts, weddings, births, deaths, and other special occasions is almost a cultural ritual [16]. According to the WHO report, the daily sugar consumption per capita in Türkiye is 83.8 grams/day [17]. This rate is well above the recommended levels worldwide. High carbohydrate consumption draws attention through bread consumption. Türkiye ranks high worldwide in terms of bread consumption per capita, and bread is consumed intensively as an essential food source [18]. Another common habit is tea consumption. Tea is consumed most in Türkiye, with an average annual per capita consumption of 3.15 kg [19]. Continuous tea consumption may lead to teeth staining and adverse effects on oral health due to the substances in the tea. Finally, smoking is an essential factor that directly affects oral health. According to the report published by the World Health Organisation in 2022, the rate of tobacco product users in Türkiye is 30.9%. Smoking increases the risk of serious health problems such as oral cancer as well as dental and gum diseases [17]. These habits are among the common factors threatening oral and dental health in Turkish society and reveal the need to raise awareness among individuals about oral health.

Diversity in the distribution of dental care providers: In Türkiye, as in many other countries, dental services are mainly provided by the private sector. On the other hand, public services focus more on therapeutic services, and the rate of preventive dentistry applications remains relatively low [20].

There is a significant increase in the number of dental units in parallel with the rise in the number of private dental polyclinics. For example, the number of dental units, 4,474 in 2012, increased to 14,310 by 2021. According to 2021 data, the private sector has more dental units than the public hospital [Table/Fig-1] [21,22]. This situation causes oral and dental health treatments to burden the household budget significantly. Depending on the income level, unaffordable oral health services become more apparent. Lack of financial resources leads to severe disruptions in regular dental check-ups and other oral health services [14]. This situation increases oral health inequalities across society and requires reconsidering health policies.

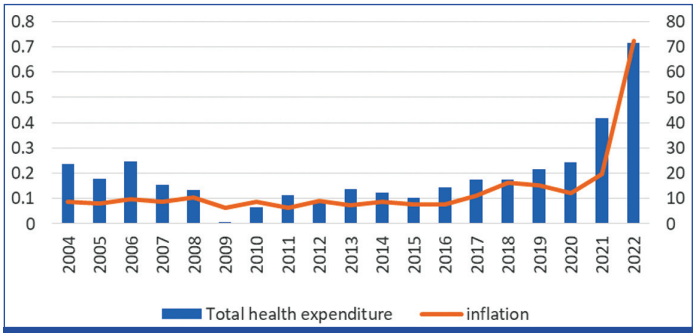


[Table/Fig-1]: Distribution of the number of units in institutions providing oral and dental health services by sector in Turkiye [21,22].

Implemented national policies: It is recognised worldwide that political factors significantly impact health. Social policies at the macro level deeply affect the health system, socioeconomic inequalities and social-cultural capital structure of the society. Especially in Europe, it has been observed that Scandinavian welfare states such as Finland and Denmark have better health performance than other welfare states. Similarly, it is observed that oral health performance outputs follow a parallel course with this high health performance. Oral health remains in the background in the political context, especially in low and middle-income countries [23].

Relationship of Utilisation of Oral Health Services with Economic Factors

The WHO indicates that oral and dental diseases are the fourth most expensive health issues in many industrialised nations [1]. In comparison, the Organisation for Economic Co-operation and Development (OECD) states that spending on oral and dental diseases typically comprises about 5% of total health expenditures [24,25]. However, the overall cost of these diseases is difficult to estimate due to limited data in Türkiye and worldwide. Healthcare spending can fluctuate over time based on the economy's growth and is influenced by factors like household income and inflation rates [25]. Recent years have seen a rise in health inflation, an increase in the prices of healthcare materials and services, primarily driven by the costs of modern medical equipment. This situation creates significant economic risks, especially since healthcare demand can vary widely between countries [26]. Price and income elasticity are higher for oral and dental services; thus, rising costs or declining incomes lead to lower utilisation rates, particularly in preventive care. As individuals' incomes decrease, they have less access to necessary oral health services [27]. Since 2020, Turkey's rising inflation has exacerbated healthcare costs, making it more challenging for people to access these services due to increased clinic maintenance, consumables, and equipment expenses [Table/Fig-2] [28].

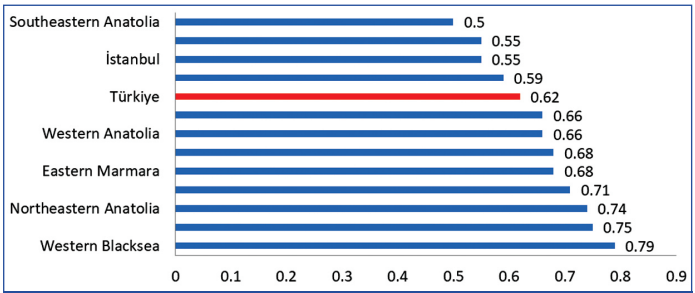


[Table/Fig-2]: The relationship between total health expenditure and inflation [28].

The frequency of dental visits in Türkiye is approximately 0.62 per person annually, compared to five visits in developed countries,

indicating substantial barriers to dental care access [22]. As a developing nation, factors such as income and purchasing power contribute significantly to these limitations. Socioeconomic inequalities hinder access to dental services, resulting in oral health issues being diagnosed at advanced stages and increasing treatment costs, thereby exacerbating regional and social disparities in service utilisation [29].

Globally, including in Turkey, Oral health initiatives tend to focus primarily on treatment, which fails to meet the needs of a significant portion of the population and is often inaccessible and unaffordable for low-income regions. Data from 2022 indicates that access to dental care is particularly limited in the Southeastern Anatolia Region [Table/Fig-3] [21], where educational attainment and employment rates are notably lower. Consequently, rural residents face challenges such as inadequate infrastructure and a lack of dental specialists, further impeding their access to oral health. Services.



[Table/Fig-3]: Per Capita Visits to a Dentist by NUTS-1, All Sectors, 2022.
Image courtesy: Turkish Health Statistics Year Book 2022. https://dosyasb.saglik.gov.tr/Eklenti/48055/0/siy2022eng050420241pdf.pdf [21].

Throughout the world, oral health is financed by private health insurance rather than public financing. In Türkiye, private health institutions mainly provide treatments, especially preventive oral health services, as in most countries. Therefore, it is understood that individual burdens are high in oral health financing. When general health expenditures are analysed, according to the OECD 2023 Health at a Glance Report, out-of-pocket health expenditures of individuals increased in real terms, and out-of-pocket health expenditures increased by approximately 60 percent in real terms in 2022 [25]. On the other hand, due to marketised health policies, the share of the private sector in health expenditures increased from 19 percent in 2009 to 23.7 percent in 2022. These results show that individual burdens in health financing have increased. When accessing these services, individuals' income levels and cost barriers come to the fore. As income levels decrease, the number of individuals who do not benefit from oral health services increases [21]. Research on financing oral and dental health services reveals that current financing methods are not satisfactory for service providers and users [30]. In Türkiye, the public expects to cover the financing of oral and dental health services fully. However, the current budget of the Ministry of Health is at a level that would not be sufficient even if it were focused only on oral and dental health services [31]. Therefore, individuals contribution is essential in financing oral and dental health services. One of the main problems regarding oral and dental health services in Türkiye is the neglect of the preventive health system. Inadequate investment in preventive health services leads to an increase in treatment costs in the long run and further aggravates the burden of the system [32]. In addition to financing methods, structural problems such as service delivery, management, and human resources also negatively affect the system's effectiveness. The solution to these problems can be possible by revising the oral and dental health policies and giving more importance to preventive services.

Current Policy and its Major Gaps/Challenges

Although the privatisation of health in Türkiye started long before, it was mainly initiated in 2002 within the framework of neoliberal policies under the name of the 'Health Transformation Project' [33]. While the corperative model was in question in the previous periods, in the new period, there have been efforts to adapt public health institutions to market conditions [34]. The main points of the discussions that initiated the privatisation of health services are the reasons such as the inability of health provision to close regional disparities, inequalities in access to health, inefficient use of health resources, and serious problems in service provision [35]. In Turkey, the public hospital system operates under a performance-based framework that has both advantages and disadvantages. A key benefit is the improved appointment scheduling and enhanced patient satisfaction. However, significant drawbacks also exist. For instance, dentists are required to see more patients to maintain a stable income, which often leads to reduced consultation times. This practice can negatively impact the quality of care, especially since many dental procedures require sufficient time [32].

The performance-based model pressures physicians to complete procedures more quickly, increasing the likelihood of patients needing additional treatment soon after their initial visits. Observations show that healthcare providers often favor quicker and simpler procedures to maximise their income. This focus on efficiency may sometimes lead to prioritising system targets over patient needs. Although clinicians strive to adhere to ethical principles, systemic pressures can compromise patient welfare. Consequently, many individuals prefer private dental practices, which typically offer higher satisfaction levels [35]. Therefore, it is crucial to reevaluate the performance-based system and shift towards a patient-centered approach grounded in the ethical values of healthcare professionals [36].

DISCUSSION

Although oral diseases are highly preventable, they significantly burden health expenditures in most countries. This is because treating oral health problems is generally expensive and not covered by general health insurance. Knowing the economic dimension of oral diseases, treatment, and costs of oral diseases is essential for society. Improving community oral health can reduce treatment costs and contribute to the economy by positively affecting productivity in the labour market [37].

In recent years, oral health has been recognised as an integral part of general health, and steps have been taken towards integration into health strategies [9]. However, although the need for preventive oral health approaches is emphasised in the goals, the approaches have generally focused on treatment, and this method has remained costly and limited. The findings provide essential opportunities for policymakers to strengthen oral health strategies, develop new approaches in areas where dental diseases are prevalent, and provide universal coverage for dental care [27,28]. At this point, we emphasise that the most crucial goal in integration into health strategies is disseminating preventive oral health services and raising public awareness.

Oral diseases, like other health outcomes, are linked to social hierarchy in society, and this relationship is called 'social disposition'. Socioeconomic status is directly related to an individual's health status, reflecting the impact of socioeconomic position on health. This implies that as one moves down the social ladder, individuals become more susceptible to various diseases, and this trend is consistently observed in all segments of society. In short, disadvantaged groups have higher risks for general health; therefore, socio-demographic inequalities in oral health must be addressed [38].

Since many factors affecting oral health create an economic burden, the economic status of individuals is related to oral health. Lack of financial resources causes disruptions in receiving regular dental checks and other oral health services [14]. In this context, since unmet oral health services are pretty evident according to income levels, service access for disadvantaged groups should be

increased to eliminate this inequality. In a study evaluating dental caries and associated factors among the Turkish population using the third national oral health survey findings, a high prevalence of dental caries was observed in Turkish children and adults. Dental caries were lower in urban individuals than rural areas, especially for the 35-44 age group. The study emphasised that national oral health targets should be established based on the needs, resources, and structure of Türkiye [39].

Different financing models are applied since oral health services are considered outside the general health systems in Europe. In Europe, approximately one-third of the financing of oral and dental health services is covered by public resources. In contrast, the rest is covered by individual payment or voluntary health insurance [40]. In Türkiye, Limited public resources pose a significant problem for low-income households. This situation also causes oral and dental treatments to remain mainly curative rather than a preventive health service nationwide. In financing oral health services in Türkiye, public and individual resources should be organised efficiently, and preventive services should be increased. In addition, implementing models to improve service quality with various projects, as in Europe, will contribute to effective resource allocation. The fact that oral and dental health problems are generally perceived only as toothache and that individuals predominantly consult dentists only for the management of symptoms reveals that the oral health awareness of society is insufficient. However, one of the essential reasons for this situation is the individual's socio-economic status. In poor societies, going to the hospital for any disease is seen as a loss of labour force or a loss of time as an economic loss, so diseases that do not disrupt the daily routine are always put on the back burner. Diseases that do not cause direct financial loss, such as oral problems, are especially ignored. This leads to limited adoption of preventive health behaviors and missed opportunities for early intervention [39-41].

In a study investigating the use of preventive oral and dental health services by individuals and the factors affecting this, it was found that 66% of the participants did not use them. A 72% of the participants stated that they saw a dentist only when they needed help with dental problems. It has been determined that service utilisation is mainly related to the individual's income status and the evaluation of their oral and dental health [41]. In another study aiming to assess oral health status and individual, socioeconomic, and health service-related factors in individuals aged 65 years and older in Türkiye, it was emphasised that barriers and risk factors should be addressed to improve oral health among older people in Türkiye, access to dental care should be increased. Socioeconomic determinants of oral health should be focused on [42]. In particular, expanding preventive oral health services, increasing access to services for disadvantaged groups, and raising awareness about oral health stands out as the main strategies that can contribute to solving these problems.

The limitation of this review was the absence of a public health dentist, which prevented us from gaining a direct perspective on oral health care. This situation arises from the lack of a dental school at our university and the challenges in facilitating inter-institutional physician cooperation due to the volume of oral and dental health hospitals. Nevertheless, we aimed to provide a multidisciplinary viewpoint, incorporating insights from a health professional who specialises in oral health research, as well as contributions from a sociologist and an economist.

CONCLUSION(S)

Oral health is an integral part of general health. In Türkiye, preventive oral health services are not widespread, and access to treatment-oriented approaches is limited. Inequalities in access to oral health care arise from factors such as lack of attention to socioeconomic determinants and oral health awareness, high costs, long waiting lists, and limited accessibility in rural areas. In conclusion, some policy recommendations, such as raising awareness on preventive oral health and addressing the relationship between access to oral health services and social and economic factors, expanding coverage and insurance in oral and dental health services, increasing public health centers for oral health, and initiating oral health programs at the community level are critical for the development of sustainable policies to improve the quality of life of individuals and reduce health inequalities.

Scientific responsibility statement: The authors declare that they are responsible for the article's scientific content, including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.

REFERENCES

[1] World Health Organization (WHO). Oral health. 2023. Online, 14.01.2025. Available from: https://www.who.int/team/noncommunicable-diseases/global-status-report-on-oral-health-2022/.

[2] Peterson PE. The World Oral Health Report 2003: Continuous improvement of oral health in the 21st century- the approach of the WHO Global Oral Health Programme. Community Dent Oral Epidemiology. 2003;31(1):03-24.

[3] Fiorillo L. Oral health: The first step to well-being. Medicine (Kaunas, Lithuania). 2019;55(10):676.

[4] Cicciu M. Neurodegenerative disorders and periodontal disease: Is there a logical connection? Neuroepidemiology. 2016;47:94-95.

[5] GBD 2017 Oral Disorders Collaborators, Bernabe E, Marcenes W, et al. Global, Regional, and National Levels and Trends in Burden of Oral Conditions from 1990 to 2017: A systematic analysis for the Global Burden of Disease 2017 study. J Dent Res. 2020;99(4):362-73.

[6] The Challenge of Oral Disease- A call for global action. The Oral Health Atlas. 2nd ed. Geneva, FDI World Dental Federation; 2015. Available from: https://www.fdiworlddental.org/oral-health-atlas.

[7] Andersen RM. Revisiting the behavioural model and access to medical care: Does it matter? J Health Soc Behav. 1995;36(1):1-10.

[8] Demir B. Sağlığın Kavramsallaştırılması ve İnsan Odaklı Sağlık Hizmetlerinde Kalite ve Akreditasyon Perspektifi [Conceptualisation of health and human oriented quality and accreditation perspective in health services]. İnsan&İnsan. 2020;7(24):62-83. (Turkish)

[9] Glick M, Willimas DM, Kleinman DV, Vujicic M, Watt RG, Weyant RJ. A new definition for oral health developed by the FDI World Dental Federation opens the door to a universal definition of oral health. American Journal of Orthodontics and Dentofacial Orthopedics. 2017;151(2):229-31.

[10] Güner ÖE, Çilingiroğlu N. Ağız ve Diş Sağlığını Etkileyen Sosyal ve Kültürel Faktörler [Social and cultural factors affecting oral and dental health]. Sağlık Akademisi Kastamonu. 2020;7(1):165-80. (Turkish)

[11] Koseoglu M, Bal O, Turkan H, Çetin B, Tascioglu M, Aydin, N, et al. Oral care practices of adults in Turkey. Makara Journal of Health Research. 2020;24:10.

[12] Korkmaz E, Kaptan A. Cross-sectional analysis of prevalence and aetiological factors of dental erosion in Turkish children aged 7-14 years. Oral Health & Preventive Dentistry. 2020;18(1):959-71.

[13] Ağırman KT, Yeşiltepe S, Miloğlu Ö, Sarıca İ. Salvadora Persıca Misvak Ve Ağız Sağlığına Etkileri: Derleme [Salvadora persıca mısvak and ıts effects on oral health: A review] Atatürk Üniv Diş Hek Fak Derg. 2018;28(3):410-14. (Turkish). Doi:10.17567/ataunidfd.473361.

[14] Toktaş İ, Erdem Ö, Eratilla V, Pervane VD, Yosunkaya A. Sosyoekonomik düzeyi yüksek okul çağı çocuklarının ağız diş sağlığı açısından incelenmesi [Investigation of school-age children with high socioeconomic level in terms of oral dental health]. Sürekli Tıp Eğitimi Dergisi. 2021;30(6):409-14. (Turkish). Doi: 10.17942/sted.809008.

[15] Bayram B, Bozan ÖP. Yetişkin Bireylerin Akdeniz Diyetine Uyumlarının Diş Çürüğü ve DMFT İndeksi Üzerine Etkisinin İncelenmesi: Tanımlayıcı Araştırma. [Investigation of the effect of adherence to mediterranean diet on dental caries and DMFT ındex of adult ındividuals: A descriptive study]. Klinik Bilimler Dergisi. 2024;13(3):444-52. (Turkish)

[16] Shipman D, Durmuş B. The effect of culture on food consumption; a case of special religious days in Turkey. Journal of Field Robotics. 2017;6:92.

[17] World Health Organization. Oral Health Türkiye 2022 country profile. WHO, 2022. Available from: https://cdn.who.int/media/docs/default-source/country-profiles/oral-health/oral-health-tur-2022-country-profile.pdf?sfvrsn=dfd0c82_7&download=true.

[18] Engindeniz S, Bolatova Z. A study on consumption of composite flour and bread in global perspective. British Food Journal. 2019;123(5):1962-73.

[19] Statista. Annual per capita tea consumption worldwide as of 2016, by leading countries. 2016. Available from: https://www.statista.com/statistics/507950/global-per-capita-tea-consumption-by-country/ [accessed 11 March 2025].

[20] Hayran O, Mumcu G, Sur H, Yildirim C, Söylemez D, Atli H. Financing of dental services in Turkey: Opinions and expectations of dentists, residents, and patients. J Public Health Dent. 2004;64(2):82-87.

[21] Turkish Health Statistics Year Book 2022. Available from: https://dosyasb.saglik.gov.tr/Eklenti/48055/0/siy2022eng050420241pdf.pdf.

[22] Tekinalp M, Şahinöz T. Türkiye'deki Ağız Diş Sağlığı Hizmetlerinin Son 50 Yılının Sağlık Yönetimi Bakış Açısıyla Analizi [An analysis of the last 50 years of oral and dental health services in turkey from a health management perspective]. Güncel Sağlık Yönetimi Dergisi. 2024;2(1):08-22. (Turkish).
[23] Özyavaş S. Türkiye'de Ağız Diş Sağlığı Politikası: Mevcut Durum Analizi [Oral and Dental Health Policy in Turkey: Current Situation Analysis]. Hacettepe Sağlık İdaresi Dergisi. 2018;21(4):789-805. (Turkish).
[24] OECD. Health at a Glance 2013: OECD Indicators, OECD Publishing, Paris. 2013. Available from: https://doi.org/10.1787/health_glance-2013-en.
[25] OECD. Health care financing in times of high inflation, OECD, Paris. 2023. Available from: https://www.oecd.org/health/Health-care-financingin-times-of-high-inflation.pdf.
[26] Ellis RP, Martins B, Zhu W. Health care demand elasticities by type of service. J Health Econ. 2017;55:232-43.
[27] Schwendicke F, Dörfer CE, Schlattmann P, Page LF, Thomson WM, ve Paris S. Socioeconomic inequality and caries: A systematic review and meta-analysis. J Dent Res. 2015;94(1):10-18.
[28] Turkish Statistical Institute (TURKSTAT). Health Expenditure Statistics. 2022. Online, 15.10.2024. Available from: https://www.tuik.gov.tr/.
[29] Watt RG, Daly B, Allison P, Macpherson LMD, Venturelli R, Listl S, et al. Ending the neglect of global oral health: Time for radical action. Lancet. 2019;394(10194):261-72.
[30] McKenzie JA, Dalton EM. Universal design for learning in inclusive education policy in South Africa. Afr J Disabil. 2020;9:776.
[31] Işık A, Suat S, Yavuz ÖS, Şeren, GY, Habiboğlu B. An evaluation of oral and dental health services in Turkey and in the member states of the EU in terms of economy. In Oral Healthcare and Technologies: Breakthroughs in Research and Practice. IGI Global. 2017;494-514. Doi: 10.4018/978-1-5225-1903-4.ch013.
[32] Kara F. Türk Sağlık Sisteminde Özelleştirme Uygulamalarının Değerlendirilmesi: 1985-2022 Dönemi [Evaluation of customization applications in the Turkish health system: 1985-2022 period]. JOHESAM Journal of Health Sciences and Management. 2024;4(1):22-28. (Turkish).
[33] Çetin FG. Sağlıkta Dönüşüm Programı Ekseninde Sağlığın Ekonomi Politiği [Economy politics of health ın the line with the health transformation program]. Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi. 2016;19(1):274-93. (Turkish).
[34] Vural BK, Taşpınar A. Sağlık Politikaları [Health Policies]. Ege Üniversitesi Hemşirelik Yüksek Okulu Dergisi. 2006;22(1):305-18. (Turkish).
[35] Kadioglu F. An ethical analysis of performance-based supplementary payment in Turkey's healthcare system. Cambridge Quarterly of Healthcare Ethics. 2016;25:493-96.
[36] Mumcu G, Sur H, Yildirim C, Soylemez D, Atli H, Hayran O. Utilisation of dental services in Turkey: A cross-sectional survey. Int Dent J. 2004;54(2):90-96.
[37] Listl S, Galloway J, Mossey PA, Marcenes W. Global economic ımpact of dental diseases. J Dent Res. 2015;94(10):1355-61.
[38] Shrewsbury VA, O'Connor J, Steinbeck KS, Stevenson K, Lee A, Hill AJ, et al. A randomised controlled trial of a community-based healthy lifestyle program for overweight and obese adolescents: The Loozit study protocol. BMC Public Health. 2009;9:119.
[39] Orhan AI, Alkan A, Orhan K, Tezel A, Karaoglanoglu S, Oztas D. Dental caries and associated factors among Turkish children and adults: Findings from the 3rd National Oral Health Survey. Community Dent Oral Epidemiol. 2024;52(4):499-508.
[40] Winkelmann J, van Ginneken E, Gomez Rossi J. Oral health care in Europe: Financing, access and provision. European Journal of Public Health, 2022;32(Supplement 3):129-372.
[41] Kocabaş D, Aslan S. A research on the use of preventive oral and dental health services. Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi. 2019;8(3):277-88.
[42] Şevik I, Davas A. The determinants of oral health in Turkish elderly: An analysis of Turkey Health Survey (THS) 2022. Eur J Public Health. 2024;34(Suppl 3):ckae144.1651.

PARTICULARS OF CONTRIBUTORS:
1. Associate Professor, Department of Social Services, Vocational School of Health Services, Bandirma Onyedi Eylul University, Balikesir, Bandirma, Turkey.
2. Assistant Professor, Department of Economic Policy, Faculty of Economics and Administrative Sciences, Bandırma Onyedi Eylul University, Balikesir, Bandirma, Turkey.
3. Assistant Professor, Department of Therapy and Rehabilitation, Vocational School of Health Services, Bandırma Onyedi Eylul University, Balikesir, Bandirma, Turkey.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Hazel Celik Guzel,
Bandırma Onyedi Eylul University, Balikesir, Bandirma, Turkey.
E-mail: hguzel@bandirma.edu.tr

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