


# Career Choice: Cross-Sectional Study of Dental Students

Manal El Hijazi \* and Ihsane Ben Yahya 

## ABSTRACT

**Background:** The choice of professional career is a crucial decision that affects students' lives. The objective of our study was to identify the factors involved in the career choice of the students at the faculty Mohamed 6 of dentistry in Casablanca.

**Materials and Methods:** An anonymous voluntary self-administered questionnaire was distributed to 1st year students. This questionnaire includes 10 closed questions divided into two sections: the first section provides information on socio-demographic data, and the second is dedicated to the factors that influenced the students' choice. Descriptive and analytical statistical analyses were performed using SPSS version 25, with a significance threshold of  $p < 0.05$ .

**Results:** We collected 130 questionnaires, with a response rate of  $> 99.2\%$ . 62.3% of the respondents, 62.3% were female. The choice of dentistry was made for 82.7% of the students before obtaining the baccalaureate; 61.5% of the students chose dentistry first; altruism and the status of the profession were the most important factors in the choice of dental studies; the significant difference between the choice factors related to gender was altruism.

**Conclusion:** Students were mainly influenced by altruism and professional status when choosing dental studies. Understanding these factors is essential for supporting students.

**Keywords:** Career choice, dental students, motivation.

Submitted: June 28, 2025

Published: September 18, 2025

 10.24018/ejedu.2025.6.5.985

Mohamed VI Faculty of Dentistry,  
Mohamed VI University of Sciences and  
Health, Casablanca, Morocco.

\*Corresponding Author:  
e-mail: elhijazi4@gmail.com

## 1. INTRODUCTION

Work is an important part of society. It promotes self-esteem and allows for financial emancipation and social integration. The choice of a professional career is therefore an important and complex decision that impacts a student's future life (Nikolovska *et al.*, 2020; Karagir *et al.*, 2021; Khemiss *et al.*, 2019). In fact, each person has their own reasons for choosing the profession of the dentist among the other professions. Many factors influence the decision-making processes. These factors are closely related and are influenced by advice from parents, friends, and teachers, as well as financial constraints, interests, values interests, beliefs, personal characteristics, personality traits, abilities, and personality traits, as well as an individual's abilities and skills (Nikolovska *et al.*, 2020; Karagir *et al.*, 2021; Kobale *et al.*, 2016; Hachimi *et al.*, 2020). The profession of dentistry is considered a noble and financially attractive profession and enjoys a certain prestige, privilege, respectability, and positive image

in society because of the flexibility of the schedule, the security of employment material gain, and the possibility of having an independent job (Nikolovska *et al.*, 2020; Lukandu *et al.*, 2020). Good motivation to choose a career in the health profession is of utmost importance for the success of university studies (Khemiss *et al.*, 2019; Kobale *et al.*, 2016). Access to the University of Medical Sciences requires passing a competitive entrance exam common to all three health sciences: medicine, dentistry, or pharmacy, also taking into account the choice expressed by the candidate. The studies of dentistry in Morocco have spread over 6 years; they include a theoretical component that is practical in preclinical and clinical patient care. These studies are rigorous and demanding. They require regular work and continuous perseverance that can shake the commitment of students and lead to questioning their career choices. The purpose of this study was to describe the factors that motivate first-year dental students to choose a career as a dentist.



## 2. MATERIAL AND METHODS

This was a comprehensive cross-sectional study with a descriptive-analytical focus that aimed to identify the determining factors in the choice of dental studies based on an anonymous, self-administered, voluntary questionnaire administered directly to dental students of the UM6SS. The target population consisted of all first-year students of the Faculty of Dentistry. The faculty's schooling department provided the number and list of students. All students present at the time of the questionnaire distribution were included in this study. Students from other levels, those who were absent during the period of distribution of the questionnaire, or those who did not respond fully to the questionnaire were excluded from this study. The questionnaire was in French, since dental studies in Morocco are mainly conducted in French. The questionnaire was developed based on a literature review and was tested with the interns to ensure that all items were understood and to evaluate the average time needed to complete it, which was 15 min. This questionnaire consisted of closed questions that provided information on the following variables: age, gender, level of education, secondary school sector, level of education of the parents, occupation of the parents, and presence or absence of a family member. The first part of the questionnaire was dedicated to the following variables: age, sex, level of education, secondary school sector, parents' level of education and profession, whether a family member was working in the health field, when the choice of dental studies was made, and whether dentistry was the first choice. The second part of the questionnaire was dedicated to the factors that influenced the choice of the students gathered under four classes: interest in science (scientific curiosity and intellectual satisfaction), altruism (desire to help others, to heal, to prevent disease interaction with the health care team or patients, experience with the disease), status (professional independence, prestige, high income, job security), influence of the entourage (close relatives in the medical field desire of parents, influence of friends, influence of teachers of the college/high school). The student was asked to indicate the importance of these factors for his choice of dentistry according to a 5-modality Likert scale (not important at all, very important). The questionnaires were distributed to the students at the end of the practical sessions and were collected immediately.

Statistical analyses were performed using SPSS software version 23.0. The descriptive analysis consisted of the calculation of frequencies for the qualitative variables and of the position and dispersion parameters for quantitative variables (mean, standard deviation). In bivariate analysis, the comparison of categorical variables was performed using Pearson's Chi2 statistical test, and the significance threshold was set at  $p < 0.05$ .

### 2.1. Ethical Considerations

The study was submitted to the ethics committee of Mohammed VI University and received approval under number 27/22, all participants informed about the objectives of the study, consent was obtained from all students included in this study, and their participation was voluntary and without any direct or indirect benefit. The

TABLE I: DISTRIBUTION OF THE STUDY POPULATION

	Number	Percentage%
Sex		
Male	48	36.9
Female	82	63.1
Age		
17–18	108	83
19–20	20	15.4
21–22	2	1.6
Secondary education		
Public	13	10
Private bilingual	89	68.5
Mission cooperation	28	21.5
Family practicing in the health sector		
Father	31	23.8
Mother	24	18.5
Another member	55	42.3
Higher level of instructions		
Father	101	77.7
Mother	94	72.3
When choosing dental studies		
Childhood	37	28.5
Middle and high school	70	53.8
After obtaining the bachelorate	23	17.7
Dentistry was the 1st choice	81	62.3

anonymity, privacy, and confidentiality of the data were guaranteed to the participants.

## 3. RESULTS

At the end of data collection, of the 131 students enrolled in the first year, 130 questionnaires were collected, with a response rate of 99.23%. The final sample was composed of 49 men (37.7%) and 81 women (63.3%) with an average age of  $18.09 \pm 0.741$  years, ranging from 17 to 22 years. 69.2 Of the students, 69.2% were from bilingual private secondary schools and 21.5% were from foreign cultural cooperation missions. With regard to the presence of health professionals in the family circle, only 23.8% of fathers and 18.5% worked in the health field (doctors, dentists, pharmacists, and nurses), whereas 40.8% of students stated that another member of their family was a health professional. As for their parents' level of education, 77% of the students' fathers and 72.3% of their mothers had a university degree, 39.2% chose to study medicine at secondary school, and only 14.6% had chosen dentistry as a child. More than half of the students (61.5%) said that dental studies were their first choice, compared to 38.5%. The data are summarized in Table I.

On a 5-point Likert scale, the motivating factors with the highest averages were "independence" ('independence' (4.65/5) and 'desire to treat and prevent illness' (4.48/5), while the influence of friends was the least important factor (1.56/5). When the various factors were grouped together, the altruism item was the most influential in the students' choices (4.2/5), followed by the status of the profession (4.16/5). The results are summarized in Table II and Figs. 1–4. In a bivariate analysis linking gender and the

TABLE II: FACTORS THAT ENCOURAGE STUDENTS TO APPLY TO DENTAL SCHOOL

	The average	Interval
Attraction to sciences:		
Scientific curiosity	3.93	1.043
Intellectual satisfaction	4.11	1.101
Altruism:		
Experience with the disease	2.60	1.298
Desire to help others	4.40	0.985
Desire to treat and prevent disease	4.48	0.847
Interaction with health care team and patients	3.72	1.155
Status:		
Professional independence	4.65	0.775
Job security	4.05	1.213
Prestige	3.81	1.221
High income	4.14	1.091
Influence of the entourage:		
Relatives in the field	2.99	1.592
Parents' Desire	3.31	1.091
Influences of Friends	1.56	1.027
Influences of Teachers	1.70	1.097

four main items for choosing dentistry, altruism showed a significant relationship in favor of women (Table III).

#### 4. DISCUSSION

It is interesting to understand the incentives for choosing dental school (Al-Asmar *et al.*, 2021; Dumier *et al.*, 2016). In 2013, Pagnin grouped the main criteria for choosing medical school into four components: interest in science that includes scientific curiosity and intellectual satisfaction. Altruism, which includes the desire to help others, the desire to treat and prevent diseases, interactions with teams and patients, and lived experience with disease. Status consisting of professional independence, prestige, high income, and job security. Finally, the influence of entourage that includes the presence of relatives in the medical field and the desire of parents (Pagnin *et al.*, 2013).

In this study, the distribution according to sex showed a clear predominance in women (63.1%). This trend of feminization of the medical-dental profession is universal and has been confirmed by studies in many countries (Karagir *et al.*, 2021; Kobale *et al.*, 2016; Bommireddy *et al.*, 2021; Elkhalf *et al.*, 2022). The increasing access of women to the medical-dental profession can be explained by the

emancipation of women, their desire for higher education, and their growing interest in financial independence. In this study, only 23.8% of fathers and 18.5% of mothers were in the healthcare field. Having parents who are health professionals may influence some students to choose dentistry (Haslach *et al.*, 2018; Ausman *et al.*, 2013), whereas others will be less influenced (Karagir *et al.*, 2021; Haslach *et al.*, 2018). There is an intergenerational transmission of human capital that may influence professional choice.

In our survey, the status of dentists was the first factor of choice in the profession of dentistry, with no significant difference between the two sexes, with a mean of 4.05. Its sub-section, professional independence, was the reason for choosing the career most favored by our students, followed by job security, high income, and the prestige of the profession. The character of independence was also found in a study by Wolf in 2020 and 2021 and Hannigan in 2024 concerning European students (Wolf *et al.*, 2021; Wolf *et al.*, 2020, Hannigan *et al.*, 2024). Prestige and high income were also considered as a major reason for choice in the multicenter study of Haslach in 2018 (Haslach *et al.*, 2018), and the study of Khemiss in 2019 with Tunisian students (Khemiss *et al.*, 2019) as well as the study Karagir in 2021 (Karagir *et al.*, 2021), Herz and Sezer in 2022 (Herz & El Ayouti, 2022; Sezer *et al.*, 2022). On the other hand, the studies of Mohebbi in 2021 and Daoud in 2022 revealed that high income was the that high income was the least frequently cited motivator in their respective studies (Mohebbi *et al.*, 2021; Daoud *et al.*, 2022). The profession of dentistry has a positive image in Morocco and in the world because of the flexibility of schedules, job security, and consequent financial gain. It is considered among the two best jobs in the United States of America (Daoud *et al.*, 2022).

In our study, the altruistic character of dentistry is the second criterion for choosing dental studies. Thus, altruism is defined by a concern to help others, to be at their disposal and to devote oneself to the well-being of others. This quality is required among health professionals, particularly dentists. Many studies support our work and attest to the highly motivating character of altruism in the choice of dental studies (Kobale *et al.*, 2016; Elkhalf *et al.*, 2022; Haslach *et al.*, 2018; Herz & El Ayouti, 2022; Abdul Hamid *et al.*, 2024; Xu, 2014). Aware of the human character of dentistry, initial studies within the Moroccan dental faculty offer students from the beginning of their

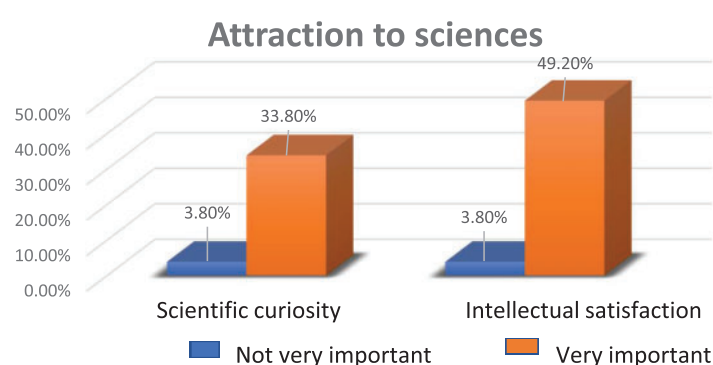


Fig. 1. Distribution of responses to the items of the dimension "Attraction to sciences".

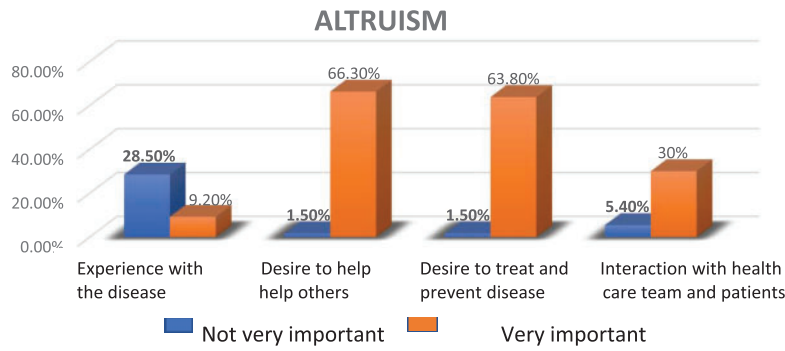


Fig. 2. Distribution of responses to items in the “Altruism” dimension.

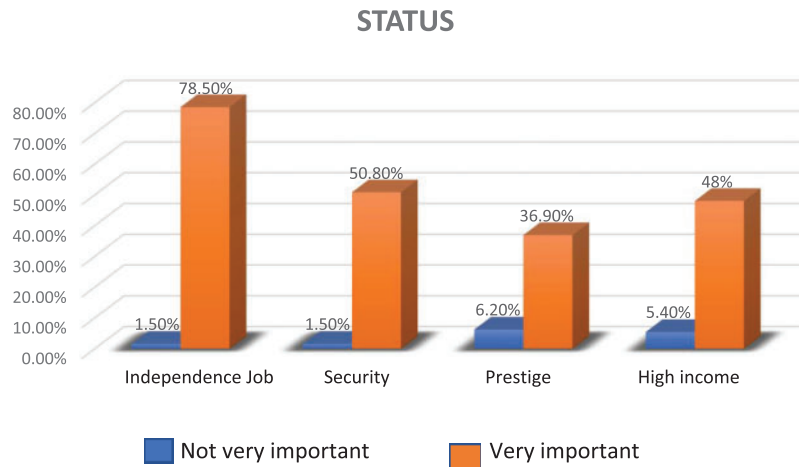


Fig. 3. Distribution of responses to items in the “Status” dimension.

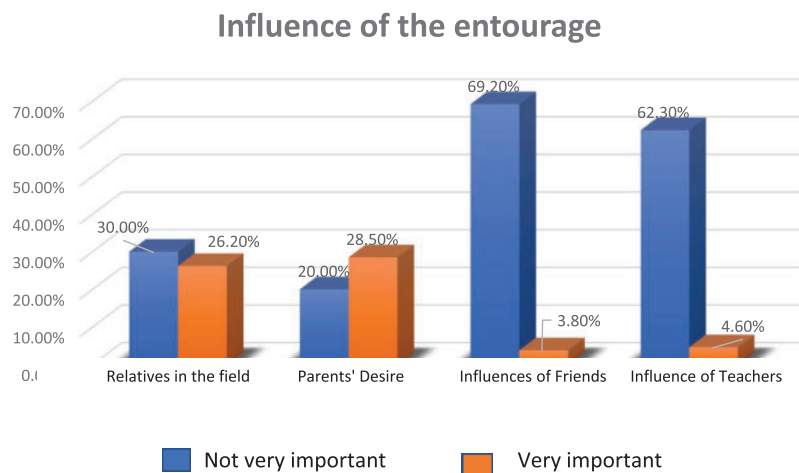


Fig. 4. Distribution of the responses to the items of the dimension “Influence of the entourage”.

TABLE III: RELATIONSHIP BETWEEN GENDER AND FACTORS INFLUENCING CHOICE OF MEDICAL EDUCATION

	Man	Women	P
Attraction to science	3.28 ± 0.91	4.21 ± 1.398	0.353
Altruism	3.57 ± 0.72	3.94 ± 0.83	0.025
Status	4.09 ± 0.91	4.88 ± 0.93	0.603
Influence of the environment	2.55 ± 0.95	2.23 ± 0.89	0.104

university courses basic training in sociology, communication, psychology, ethics and professional ethics in an effort to promote the omnipresent humanist fiber among students.

Scientific interest was the third factor that motivated the choice of dentistry. This is in line with the work carried out by Maoyi, Hachimi, and Kaersgaard in 2021, in which Australian Moroccan and Danish students ranked the attraction of science as the number one factor in their choice of dental studies (Ismail & Hachimi, 2017; Karagir *et al.*, 2021; Kaersgaard *et al.*, 2021).

As for the role of students' entourage, it had little influence on students' choice. This weak influence was found in Haslach *et al.*'s (2018) and Karagir *et al.*'s (2021) studies. Daud and Sezer's study in 2022 and Nikolovka's in 2020 attested to the decisive influence of family on students'



career choices (Nikolovska *et al.*, 2020; Sezer *et al.*, 2022; Mohebbi *et al.*, 2021).

Other factors can be cited, particularly those relating to the learning environment, the way the institution operates, teaching activities, and learners' assessment practices (Nikolovska *et al.*, 2020; Elkhafaf *et al.*, 2022; Karagir *et al.*, 2021).

This study has some limitations, as it is a descriptive cross-sectional study where the sociocultural context is influential, and a comparison with other studies must be conducted with caution. We conducted our survey through a self-administered questionnaire composed of closed questions, that could expose the study to the risk of self-report bias and social desirability bias in the data which we tried to reduce by respecting the anonymity of the data and using a Likert scale. The high response rate makes the student's choice more representative. To complete this study, we intend to achieve a qualitative analysis to further identify the process of choice among dental students.

## 5. CONCLUSION

The results of this study showed that the three main motivating factors for choosing dentistry were status, interest in science, and altruism. Knowing and understanding these factors allows us to generate motivation and establish strategies for the development of dental career.

## ACKNOWLEDGMENT

We thank the students of the first year of dental medicine at Mohammed VI University of Health Sciences for their participation in this scientific work.

## FUNDING

This research received no specific grants from any funding agency in the public, commercial, or not-for-profit sectors.

## DECLARATION OF INTEREST

The authors state have no link of interest in relation to this article.

## REFERENCES

- Abdul Hamid, N. F., Jaafar, A., Asming, N. N., Suria, N. S., Ho, T. K., Lim, Z. Y. J., & Lim, T. W. (2024). Factors influencing the selection of dentistry as a career among prospective candidates: A multicentre cross-sectional study. *European Journal of Dental Education*, 29(1), 19–28. <https://doi.org/10.1111/eje.13044>.
- Al-Asmar, A. A., Oweis, Y., Ismail, N., Sabrah, A. H. A., & Abd-Raheem, I. (2021). The predictive value of high school grade point average to academic achievement and career satisfaction of dental graduates. *BMC Oral Health*, 21(1), 300. <https://doi.org/10.1186/s12903-021-01662-5>.
- Ausman, J., Javed, A., Shuja, A., Abdul Samad, M., & Salehi, A. (2013). Social factors influencing career choice in a medical school in the United Arab Emirates. *Education in Medicine Journal*, 5(1), 14–20.
- Bommireddy, V. S., Chandu, V. C., Kommineni, H., Vijaykumar, A., Ravoori, S., & Neeli, S. G. (2021). Is the profession of dentistry losing its yesteryear's glory? An exploratory study from dental students' perspective. *Indian Journal of Dental Research*, 32(1), 35–38. [https://doi.org/10.4103/ijdr.IJDR\\_111\\_20](https://doi.org/10.4103/ijdr.IJDR_111_20).
- Daoud, A., Matoug-Elwerfelli, M., Du, X., & Ali, K. (2022). A qualitative enquiry into dental students' perceptions of dentistry as a career choice in the State of Qatar. *BMC Medical Education*, 22(1), 452. <https://doi.org/10.1186/s12909-022-03522-4>.
- Dumier, L., Alliot-Licht, B., Bouton-Kelly, L., Bonnaud-Antignac, A., Michaut, C., Quilliot, F., Guihard, G. (2016). Factor analysis of a motivation questionnaire adapted to predoctoral French dental students. *Journal of Dental Sciences*, 11, 123–129.
- Elkhafaf, M., Abubkar, N., Alenezi, H., & Ziada, H. (2022). The motivation and confidence in choosing dentistry as a career amongst dental students: A mixed-methods study. *European Journal of Dental Education*, 26(1), 66–75. <https://doi.org/10.1111/eje.12673>.
- Hachimi, A., Adarmouch, L., Ismail, A., Hajjine, A., & Bouskraoui, M. (2020). Motivational profile of undergraduate medical students of Marrakech. *Pédagogie Médicale*, 21(1), 13–19. <https://doi.org/10.1051/pmed/2020026>.
- Hannigan, A., Hallissey, J., Ray, N., O'Dowling Keane, S., & Harrington, M. (2024). Motivational factors for choosing dentistry as a career: A survey of undergraduate dental students in Ireland. *Journal of the Irish Dental Association*. <https://doi.org/10.58541/001c.94409>.
- Haslach, S., Aytepe, Z., Kokkari, A., Azrak, B., Ehlers, V., Herz, M. M., Jerg-Bretzkeel, L., Margrit-Ann, G. (2018). Country and gender differences in the motivation of dental students. *European Journal of Dental Education*, 22(4), e724–e729. <https://doi.org/10.1111/eje.12386>.
- Herz, M. M., & El Ayouti, A. (2022). Motives for studying dental medicine in Germany. *European Journal of Dental Education*, 26(2), 337–346. <https://doi.org/10.1111/eje.12708>.
- Ismail, A., & Hachimi, A. (2017). *Motivation pour les études médicales : Étudiants du premier cycle de la faculté de médecine de Marrakech*. [Doctoral dissertation, 136/2017].
- Kaersgaard, J. L. B., Christensen, M. K., De Søndergaard, Y. P., & Naukkarinen, J. (2021). Gender differences in dentistry: A qualitative study on students' intrinsic and extrinsic motivations for entering dentistry at higher education. *European Journal of Dental Education*, 25(3), 495–505. <https://doi.org/10.1111/eje.12386>.
- Karagir, A., Khairnar, M. R., Adaki, S., Dhole, R. I., Patil, M. C., & Ingale, A. (2021). Assessment of the factors influencing dental students to choose dentistry as a career: A cross-sectional survey. *Indian Journal of Dental Research*, 32(2), 153–157. [https://doi.org/10.4103/ijdr.IJDR\\_111\\_20](https://doi.org/10.4103/ijdr.IJDR_111_20).
- Khemiss, M., Bagga, S., Berrezouga, L., & Ben Khélifa, M. (2019). Motivation and attitudes of Tunisian students for choosing the dental profession. *Med*, 97(2), 321–326.
- Kobale, M., Klač, M., Bavrka, G., & Vodanovic, M. (2016). Motivation and career perceptions of dental students at the School of Dental Medicine, University of Zagreb. *Croatia Acta Stomatologica Croatica*, 50(3), 207–214. <https://doi.org/10.15644/asc50/3/2>.
- Lukandu, M., Koskei, L. C., & Dimba, E. O. (2020). Motivations for a career in dentistry among dental students and dental interns in Kenya. *International Journal of Dentistry*, 2020, 1–7. <https://doi.org/10.1155/2020/1017979>.
- Mohebbi, S. Z., Gholami, M., Chegini, M., Ghoreyshi, Y., Gorter, R. C., & Bahramian, H. (2021). Impact of career choice motivation on academic burnout in senior dental students: A cross-sectional study. *BMC Medical Education*, 21(52), 1–8. <https://doi.org/10.1186/s12909-020-02475>.
- Nikolovska, J., Eaton, K. A., Kenig, N., Hysi, D., & Petricevic, N. (2020). Motivation to follow a career in dentistry of students in three South-East European countries. *Acta Stomatologica Croatica*, 54(2), 175–185. <https://doi.org/10.15644/asc54/2/8>.
- Pagnin, D., De Queiroz, V., De Oliveira Filho, M. A., Gonzalez, N. V., Salgado, A. E., Cordeiro e Oliveira, B., Silva Lodi, C., & Da Silva Melo, R. M. (2013). Burnout and career choice motivation in medical students. *Medical Teacher*, 35(5), 388–394. <https://doi.org/10.3109/0142159X.2013.769673>.
- Sezer, B., Duygu Kolay, D., Şen Yavuz, B., Kazaz, T. G., & Kargül, B. (2022). Motivations, attitudes for choosing dental profession and preferred dental specialties amongst Turkish dental students. *European Journal of Dental Education*, 26(2), 422–433.
- Wolf, T. G., Otterbach, E. J., & Zeyer, O. (2021). Influence of oral health care systems on future career environment of dental students in Europe. *International Journal of Environmental Research and Public Health*, 18(16), 8292.
- Wolf, T. G., Wagner, R. F., Zeyer, O., İlhan, D., Crnić, T., Otterbach, E. J., & Campus, G. (2020). Expectations regarding dental practice: A cross-sectional survey of European dental students. *International*

*Journal of Environmental Research and Public Health*, 17(19), 7296.  
<https://doi.org/10.3390/ijerph17197296>.

Xu, M. (2014). *Medical students' motivations for studying medicine: Changes and relationship with altruistic attitudes, expectations, and experiences of learning at university* [Doctoral dissertation]. University of Adelaide.