

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.e-jds.com

Correspondence

The considerations of a high school student for applying to dental school: A case of one-to-one counseling for higher education

**KEYWORDS**

High school student;
University entrance system;
Dental enrollment;
Counseling for higher education

In addition to one dental school in the Military University, there are 7 dental schools in Taiwan. The current university entrance system is based on the government's regulation of a unified admission system for all universities and colleges in Taiwan.¹ Therefore, there is no specific admission system only for dental schools. For dental schools, there are the common admission channels under the university entrance system for general students and another special admission channels for indigenous peoples, offshore island residents, overseas Chinese students, winners in the International Mathematics or Science Olympiads, and winners in the international Science Fairs. In addition to the additional enrollment quotas for disadvantaged students, the number of general dental enrollment quotas in the common admission channels is fixed at 371 per year for the quota control policy of medical personnel.² Furthermore, Taiwan had 95,498 high school graduates in 2022. Although not all high school graduates aspire to enter the dental schools, it is certain that there are tens of thousands of potential competitors for only 371 dental enrollment quotas each year. Obviously, entering into a dental school is a highly competitive process. In this article, we explored what our high school students think about applying to dental schools through a one-to-one counseling for higher education of dental school admission.

A northern elite high school's alumni association initiated a web platform with the function for inviting voluntary professionals in various fields to provide current students with consultation and sharing on learning and career planning. A teacher of the dental school of National Taiwan University (NTU) was invited to provide relevant counseling online to a high school student, while this article analyzed the counseling content through the participant observation. The student's question content, the counselor's response, and their significance for medical education system are shown in [Table 1](#). To sum up, the student mainly raised 7 questions. Among these questions, the question focus was mostly about entrance examination ($n = 4$), followed by dentist personality traits ($n = 1$), dentist career planning ($n = 1$), and incomes of dentists ($n = 1$). For questions about entrance examination, the counselor expressed the correct information and precautions about the examination process in practice, and provided some suggestions. For dentist personality traits, the counselor guided the student to know his own traits and to ponder what personality traits were suitable for dentists. For dentist career planning and incomes, the counselor expressed personal experience for the questions. To the best of our knowledge, this is the first qualitative research for exploring the thinking of a high school student for applying to dental school in Taiwan. We

<https://doi.org/10.1016/j.jds.2023.06.030>

1991-7902/© 2023 Association for Dental Sciences of the Republic of China. Publishing services by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Table 1 The student's question content and focus, the counselor's response, and their significance for medical education system in this counseling for applying to dental school.

Question	Brief description of the student's question	Question focus	Counselor's response
	Significance at the level for medical education system		
Question 1	What personality traits are needed for being a good dentist?	Dentist personality traits	The counselor asked the student what personality traits he had, or what experience he had, so that he could study dentistry, and then guided the student to think about whether his own personality traits (especially team spirit) were suitable for being a good dentist. Even though some dental specialties may have less contact with patients, such as oral pathology, most of the clinical works of dentists need to contact with people. The dentists should pay much attention to their patients. The clinical contact with patients or medical partners and interaction with classmates during student times all are very important. Therefore, the team spirit is an important personality trait for the dentists.
Question 2	Is the Olympiads Award or other awards helpful for admission to the dental school of National Taiwan University (NTU)?	About entrance examination	The counselor suggested that if the student had won the Olympiads Award or other special performances, he could provide relevant information to the oral committees of dental school entrance examination. The award-winning experience is also a manifestation of personal traits. The students can express their personal characteristics through the answer to the oral committees' inquiries. The students can let the oral committees know their ambition to enter the dental school through the conversation.
Question 3	Why did you (referring to the counselor) consider working in the hospital?	Dentist career planning	The counselor expressed personal experience. In Taiwan, the advantage of dentists working in the hospitals may be that there are more dental treatment cases with high complexity and severity and more opportunities for further training and learning.
Question 4	What is the salary of a hospital dentist?	Dentist incomes	The counselor expressed personal experience. In Taiwan, compared with hospital dentists, clinic dentists usually earn higher incomes. The social value system generally believes that clinic dentists have the advantages of high incomes and high quality of life. This may also be one of the reasons for the current popularity of dental schools for our high school students. Furthermore, of 15,741 practicing dentists in 2021, 2174 (13.81%) work in the hospitals and 13,567 (86.19%) work in the dental clinics.
Question 5	Why is it difficult to get admitted to the dental school of NTU? What is the scoring standard for getting a school admission permission?	About entrance examination	The counselor expressed the 3 evaluation items for individual application admission to the dental school of NTU, including handcraft (sketch and sculpture), short essay writing, and oral test. The handcraft is used to observe students' esthetic performance, as well as their hand dexterity skills and spatial concepts. The short essay writing is used to evaluate students' logical thinking ability, research design, and professional knowledge, while the oral test focuses on the students' on-the-spot performance and whether they have connotation. The test questions may include dental professional knowledge, views on relevant social current affairs, personal career planning, and teamwork spirit.
Question 6	There is an oral test question about patient privacy issues found online. How should I answer this question, if I am asked this question?	About entrance examination	The counselor expressed personal opinions. For students, they hope to know the questions that the oral committees may ask and hope to have a direction for preparation of the oral test. Due to the development of internet information and the popularity of personal sharing, they will search online to find questions that have been asked in the oral test and hope to know the answers which are most favored by the oral committees.
Question 7	During the oral test, what qualities do the oral committees expect students to have so that they can be admitted easily?	About entrance examination	The counselor provided some suggestions. For the oral committees, it is quite difficult to know the level of students from a short question and answer of a few minutes. The grades can only be awarded based on on-the-spot performance, but whether this performance is sufficient to represent the level of students is debatable. For the students, they have worked hard for many years, and just in an oral test, they have encountered an important critical point in their lives. A conversation with professionals may determine their future career direction, and thus they bear a lot of pressure. How to be fair to them may not have an answer, but we can only face it with consideration.

summarized the significance implied by the student's questions at the level for medical education system and actual situation in Taiwan.

Since 1918, dentistry has been taught in Taiwan's universities for more than 100 years.^{3,4} However, since Taiwan implemented the National Health Insurance (NHI) in 1995, the degree to which the career of dentists is favored by our high school students has undergone a drastic upward change.^{1,2} Unfortunately, the main factor may simply be that the social value system generally believes that dentists (especially those working in clinics) have the advantages of high incomes and high quality of life. Although admission into dental schools is a competitive and multi-faceted process designed to select students who are capable of completing the degree of Doctor of Dental Surgery (DDS), it is more important to discover students who also possess the attributes to become a full contributing member of the profession.^{1,5} The current dental school enrollment strategies and the educational philosophy of dental schools may affect the future dental workforce structure.² In addition to clinical dentists, the sound development of the dental field also requires the participation of dental professionals at various levels, such as dental specialists for difficult dental treatment, general dentists for oral health care of people in the communities, rural villages, and disadvantaged groups, and related teaching and research talents for basic medicine and dentistry.² Therefore, in addition to the fairness of the admission, it is very important for our high school students to correctly understand the various aspects of the career of dentists, and to develop an admission system that can screen students who are suitable for becoming full contributing members of the dental profession.

Conflicts of interest

The authors have no conflicts of interest relevant to this article.

Acknowledgments

All persons who have made substantial contributions to the work reported in the manuscript (e.g., technical help, writing and editing assistance, general support), but who do not meet the criteria for authorship, are named in the Acknowledgments and have given us their written permission to be named. If we have not included an Acknowledgments in our manuscript, then that indicates that we have not received substantial contributions from non-authors.

References

1. Cheng FC, Lee MC, Wang LH, et al. The current dental school admissions: an overview of the admission process and the geographical distribution of dental school enrollees in Taiwan. *J Dent Sci* 2022;17:1342–9.
2. Cheng FC, Lee MC, Wang LH, et al. A retrospective study of the admission ways in the school of dentistry of national Taiwan university from 2000 to 2021. *J Dent Sci* 2022;17:1577–85.
3. Cheng FC, Wang LH, Ozawa N, Chang JYF, Liu SY, Chiang CP. Development of dental education for medical students in Taiwan during the Japanese colonial period. *J Dent Sci* 2022;17:903–12.
4. Cheng FC, Wang LH, Ozawa N, Chang JYF, Liu SY, Chiang CP. Dental education and special dental practitioner-cultivating system in Taiwan during the Japanese colonial period. *J Dent Sci* 2022;17:920–7.
5. Booth AJ, Hurry KJ, Abela S. The current dental school applicant: an overview of the admission process for UK dental schools and the sociodemographic status of applicants. *Br Dent J* 2022; 232:172–6.

Feng-Chou Cheng

*Chia-Te Dental Clinic, New Taipei City, Taiwan
School of Life Science, National Taiwan Normal University,
Taipei, Taiwan
Science Education Center, National Taiwan Normal
University, Taipei, Taiwan*

Chi-Pan Hsieh

*Chuang Ear Nose and Throat Clinic, New Taipei City,
Taiwan*

Yin-Lin Wang**

*Department of Dentistry, National Taiwan University
Hospital, College of Medicine, National Taiwan University,
Taipei, Taiwan
Graduate Institute of Clinical Dentistry, School of
Dentistry, National Taiwan University, Taipei, Taiwan*

Chun-Pin Chiang*

*Department of Dentistry, National Taiwan University
Hospital, College of Medicine, National Taiwan University,
Taipei, Taiwan
Graduate Institute of Clinical Dentistry, School of
Dentistry, National Taiwan University, Taipei, Taiwan
Graduate Institute of Oral Biology, School of Dentistry,
National Taiwan University, Taipei, Taiwan
Department of Dentistry, Hualien Tzu Chi Hospital,
Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan*

**Corresponding author. Department of Dentistry, National Taiwan University Hospital, College of Medicine, National Taiwan University, No. 1, Chang-Te Street, Taipei, 10048, Taiwan.

E-mail address: wil1019@ntu.edu.tw (Y.-L. Wang)

*Corresponding author. Department of Dentistry, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, No. 707, Section 3, Chung-Yang Road, Hualien, 970, Taiwan.
E-mail address: cpchiang@ntu.edu.tw (C.-P. Chiang)

Received 29 June 2023
Available online 12 July 2023