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Original Article

# A retrospective study of the admission ways in the School of Dentistry of National Taiwan University from 2000 to 2021



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## KEYWORDS

Dental school enrollees;  
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Numerous stars

**Abstract** *Background/purpose:* In Taiwan, dental schools have gradually become a popular choice for high school graduates to enter in the universities. This study mainly analyzed the various admission ways to enroll students into the School of Dentistry of National Taiwan University (SODNTU) from 2000 to 2021.

*Materials and methods:* The data on the numbers of enrollees and those enrollees who had completed registration in the SODNTU from 2000 to 2021 were available online to the public and included in this study.

*Results:* The total number of enrollees in the SODNTU over the past 22 years was 764 with an

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initiatives admission;  
University admission system

annual mean of 34.73. The registration rate ranged from 90.91% to 100% with a mean registration rate of 96.86% from 2000 to 2021. The examination admission, individual application admission, and numerous stars initiatives admission were the three main admission ways to enroll students into the SODNTU from 2000 to 2021 with a total of 662 enrollees (86.65% of a total of 764 enrollees). The number (proportion) of enrollees through examination admission showed a decreasing trend year by year from 26 (78.79%) in 2000 to 15 (45.45%) in 2021. On the contrary, those enrollees through individual application admission and numerous stars initiatives admission showed an increasing trend year by year from 4 (12.12%) in 2000 to 14 (42.42%) in 2021.

*Conclusion:* Although the examination admission is still the predominant admission way, the individual application admission and numerous stars initiatives admission gradually play pivotal roles to enroll students into the SODNTU recently.

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## Introduction

In Taiwan, the course of dentistry first started in 1900 as a part of the subject of surgery in the Taiwan Government Medical School, and it became an independent subject in 1918. The dentistry course has been taught in Taiwan for more than 120 years. In 1949, the Department of Dentistry of National Defense Medical Center was moved to Taiwan, and in 1953, the School of Dentistry of National Taiwan University (SODNTU) was established.<sup>1–4</sup> Therefore, the training of dentists has been performed in dental schools for more than 70 years.

Taiwan's medicine developed rapidly during the Japanese colonial period (1895–1945). In Taiwan's traditional social concept, studying in a medical school and becoming a physician is the best channel for social mobility. Although Taiwan's dentistry went through a difficult period, it was not until 1975 that Taiwan's new Physicians Act recognized dentists as a type of legal physicians.<sup>5</sup> Therefore, dental schools have gradually become a popular choice for our high school graduates to enter in the universities. In particular, the implementation of the National Health Insurance (NHI) in Taiwan in 1995 and the rapid development of high-cost dental treatment items in the past 20 years have made dentists a kind of medical personnel with a relatively high income and reasonably high quality of life. Admission to a dental school has become a highly competitive and multi-faceted process.<sup>6–8</sup> However, early Taiwanese students who were interested in medicine always chose the medical school as their first choice, followed by the dental school. Even after getting admission to a dental school, it is a common fact that some of the dental students give up and retake the joint college entrance examination to enter the medical schools. Just in the past 20 years of environmental changes, dental schools have become an extremely popular choice in the universities. Moreover, among high school graduates, dental schools have gradually become the first choice to enter in the universities. In fact, it has already become more competitive and harder to get admission to a dental school than to a medical school through the university admission system. To take the SODNTU as an example, in 1953, only 10 students applied

for enrollment into the SODNTU, but no one was admitted. Currently, there are tens of thousands of potential applicants who compete for less than 40 dental enrollment quotas in the SODNTU every year. In Taiwan, it has already been an obvious fact that there is a barrier for entry into the dental schools. In the United States, this obstacle is caused by high tuition and fees.<sup>9,10</sup> In Taiwan, this obstacle is caused by the high difficulty in competition for admission. Therefore, families with high socioeconomic status have more resources and methods to help their children to enter the dental schools. However, the tuition and fees of dental education or medical education in Taiwan are relatively low internationally, which may cause the phenomenon "reverse redistribution of tertiary education". Students with better economic conditions are more likely to enter dental schools or medical schools, and dental schools or medical schools provide more resources to students, resulting in students with better economic conditions getting more resources from the government.

The aims of this study were to describe the admission ways for entry into the SODNTU through the university admission system and various other special admission programs. The distribution of various admission ways for selecting dental undergraduate students of SODNTU was also analyzed to give a reference for the formulation of future dental school admission policy.

## Materials and methods

This study adopted the methods of the documentary analysis to find various admission ways of the SODNTU and the secondary data analysis to collect the information about the numbers of dental school enrollees accepted by the SODNTU and those enrollees who had completed the registration in the SODNTU. The related data announced on the website of NTU were from 2000 to 2021. Therefore, we could find the changes of the numbers of admitted students and registered students through various admission ways of the SODNTU from 2000 to 2021.

In addition, the numbers of determined enrollment quotas of dental schools within the total amount control and registered dental enrollees from 2017 to 2021 were also

obtained from the website of the Ministry of Education. With the data collected above, we examined the distribution of admission ways for selecting dental undergraduate students of the SODNTU, the registration rates of dental undergraduate students in various admission ways, and their changes over the past 22 years. All data were open to access and could be collected from the related websites. The selected data were stored in excel files and used for the descriptive statistics.

## Results

### The admission ways to enter the dental schools in Taiwan

In Taiwan, there is no single or specific admission system for admission to dental schools or medical schools. Generally, our senior high school graduates compete for admission to a dental school or a medical school through the University Admission Committee. Three admission ways, including examination admission, individual application admission, and numerous stars initiatives admission are the main practices in Taiwan's university admission system. Moreover, there are still some special regulations for studying dentistry in Taiwan for overseas Chinese students, children of government staff sent abroad, and international students. For overseas Chinese students, they compete for admission to a dental school or a medical school through the University Entrance Committee for Overseas Chinese Students. For children of government staff sent abroad, they can choose a dental school or a medical school to apply through the Ministry of Education, and then after being reviewed by the Ministry of Education, each school will make a written review for selection of these special students. For international students, they can apply to a dental school or a medical school for admission, and each school will review their application data for selection. There is another special regulation about further education incentives for students with a great performance in the International Mathematics or Science Olympiads and in the International Science Fairs. Those who represent Taiwan to participate in the above-mentioned two international competitions and win the top prizes may apply for guaranteed admission or recommendation to study in a dental school or a medical school. Furthermore, there are also additional enrollment quotas via university admission system and independent admission programs for admission of resource disadvantaged students to a dental school or a medical school. The resource disadvantaged students may be indigenous people, students from offshore islands, students from low-income families, children of new immigrants, or students in the high schools of remote regions of Taiwan.

From 2000 to 2021, the SODNTU has never had a dental enrollee through admission ways for children of government staff sent abroad or international students. However, there are dental enrollees through the above-mentioned other various admission ways. In Taiwan, there are also the transfer programs in dental schools associated with the universities (Table 1). In NTU's transfer program, there are about 2 dental enrollment quotas each year for the second-year students in NTU. However, the students admitted

through the transfer program in the SODNTU are not covered in this study.

The overview of admitted students in the School of Dentistry of National Taiwan University through various admission ways from 2000 to 2021.

During the past 22 years (from 2000 to 2021), the number of admitted students of the SODNTU through the multiple admission ways remained between 33 and 38 each year. The total number of enrollees over the past 22 years was 764 with an annual mean of 34.73 (Table 1). In Taiwan's university admission system, the examination admission, individual application admission, and numerous stars initiatives admission were the three main admission ways for dental enrollees of the SODNTU. There was a total of 662 enrollees (86.65% of 764 enrollees) admitted by these three main admission ways from 2000 to 2021. The numbers (proportions) of enrollees through examination admission, individual application admission, and numerous stars initiatives admission were 519 (67.93%), 109 (14.27%), and 34 (4.45%), respectively (Table 1).

Among other admission ways, the admission for overseas Chinese students was another main source of dental enrollees in the SODNTU, and the number of enrollees was maintained at a steady level of 3–4 enrollees each year. There was a total of 69 dental enrollees (9.03% of 764 enrollees) (Table 1). In the special admission ways, two students with a great performance in the International Science Fairs in 2007 and 3 students with a great performance in the International Mathematics or Science Olympiads in 2018–2020 were admitted through the guaranteed admission or recommendation to the SODNTU (Table 1). The admission way of additional enrollment quotas was an enrollment guarantee measure for disadvantaged groups, including indigenous peoples, students from offshore islands, and students in the high schools of remote regions of Taiwan. The quota was not stable, and the number of enrollees was between 0 and 4 each year. There was a total of 28 enrollees (3.66% of 764 enrollees) admitted through the additional enrollment quotas (Table 1).

Furthermore, the number of registered students in the SODNTU remained between 30 and 38 each year. The registration rate remained above 90% over the past 22 years, ranging from 90.91% to 100% with a mean registration rate of 96.86%. The number of unregistered students was at most 3 over the past 22 years. Among various admission ways, only examination admission and admission for overseas Chinese students had the unregistered students. Their mean registration rates were 97.50% and 84.06% for examination admission and admission for overseas Chinese students, respectively. The other admission ways maintained a 100% registration rate (Table 2).

For the university admission system and admission way of additional enrollment quotas, the number (proportion) of enrollees through examination admission showed a decreasing trend year by year from 26 (78.79%) in 2000 to 15 (45.45%) in 2021. On the contrary, and those through individual application admission and numerous stars initiatives admission showed an increasing trend year by year from 4 (12.12%) in 2000 to 14 (42.42%) in 2021. However, those admitted through additional enrollment quotas also showed a slight increase (Table 3).

**Table 1** The numbers of admitted students and registered students of the School of Dentistry of National Taiwan University through various admission ways from 2000 to 2021.

	Examination admission		Individual application admission		Numerous stars initiatives admission		Overseas Chinese students		Winners in the International Mathematics or Science Olympiads and winners in the International Science Fairs		Additional enrollment quotas		Overall	
	Admitted students	Registered students	Admitted students	Registered students	Admitted students	Registered students	Admitted students	Registered students	Admitted students	Registered students	Admitted students	Registered students	Admitted students	Registered students
	2000	26	23	4	4	0	0	3	3	0	0	0	0	33
2001	27	26	3	3	0	0	3	3	0	0	0	0	33	32
2002	27	27	3	3	0	0	3	2	0	0	0	0	33	32
2003	28	28	2	2	0	0	4	1	0	0	0	0	34	31
2004	26	26	3	3	1	1	3	2	0	0	0	0	33	32
2005	27	26	2	2	1	1	3	3	0	0	0	0	33	32
2006	26	26	3	3	1	1	3	3	0	0	1	1	34	34
2007	28	28	2	2	1	1	3	3	2	2	0	0	36	36
2008	27	26	3	3	1	1	3	3	0	0	1	1	35	34
2009	28	27	3	3	1	1	3	2	0	0	3	3	38	36
2010	26	26	3	3	1	1	3	2	0	0	1	1	34	33
2011	28	28	2	2	1	1	4	4	0	0	3	3	38	38
2012	26	26	4	4	1	1	4	3	0	0	2	2	37	36
2013	26	24	3	3	1	1	3	2	0	0	2	2	35	32
2014	20	19	5	5	4	4	3	3	0	0	3	3	35	34
2015	20	19	8	8	2	2	3	3	0	0	2	2	35	34
2016	21	21	8	8	1	1	3	3	0	0	2	2	35	35
2017	19	19	8	8	1	1	3	3	0	0	3	3	34	34
2018	17	16	8	8	4	4	3	3	1	1	2	2	35	34
2019	16	16	8	8	8	8	3	3	1	1	2	2	38	38
2020	15	14	12	12	2	2	3	2	1	1	0	0	33	31
2021	15	15	12	12	2	2	3	2	0	0	1	1	33	32
Total dental enrollees	519	506	109	109	34	34	69	58	5	5	28	28	764	740
Annual mean of dental enrollees	23.59	23	4.95	4.95	1.55	1.55	3.14	2.64	0.23	0.23	1.27	1.27	34.73	33.64
<sup>a</sup> Proportion (%)	67.93	68.38	14.27	14.73	4.45	4.59	9.03	7.84	0.65	0.68	3.66	3.78	100	100

<sup>a</sup> Proportion: The proportion of the total number of dental enrollees admitted through each admission way to the overall number of dental enrollees admitted through all admission ways used by the School of Dentistry of National Taiwan University.

**Table 2** The registration rates of admitted students in the School of Dentistry of National Taiwan University through various admission ways from 2000 to 2021.

	Examination admission	Individual application admission	Numerous stars initiatives admission	Overseas Chinese students	Winners in the International Mathematics or Science Olympiads and winners in the international Science Fairs	Additional enrollment quotas	Overall
2000	88.46	100	—	100	—	—	90.91
2001	96.30	100	—	100	—	—	96.97
2002	100	100	—	66.67	—	—	96.97
2003	100	100	—	25	—	—	91.18
2004	100	100	100	66.67	—	—	96.97
2005	96.30	100	100	100	—	—	96.97
2006	100	100	100	100	—	100	100
2007	100	100	100	100	100	—	100
2008	96.30	100	100	100	—	100	97.14
2009	96.43	100	100	66.67	—	100	94.74
2010	100	100	100	66.67	—	100	97.06
2011	100	100	100	100	—	100	100
2012	100	100	100	75	—	100	97.30
2013	92.31	100	100	66.67	—	100	91.43
2014	95	100	100	100	—	100	97.14
2015	95	100	100	100	—	100	97.14
2016	100	100	100	100	—	100	100
2017	100	100	100	100	—	100	100
2018	94.12	100	100	100	100	100	97.14
2019	100	100	100	100	100	100	100
2020	93.33	100	100	66.67	100	—	93.94
2021	100	100	100	66.67	—	100	96.97
Overall	97.50	100	100	84.06	100	100	96.86

**Table 3** The numbers and proportions of admitted students in the School of Dentistry of National Taiwan University through the university admission system and admission way of additional enrollment quotas from 2000 to 2021.

	Examination admission		Individual application admission and numerous stars initiatives admission		Additional enrollment quotas	
	Number of admitted students	Proportion of admitted students	Number of admitted students	Proportion of admitted students	Number of admitted students	Proportion of admitted students
2000	26	78.79	4	12.12	3	9.09
2001	27	81.82	3	9.09	3	9.09
2002	27	81.82	3	9.09	3	9.09
2003	28	82.35	2	5.88	4	11.76
2004	26	78.79	4	12.12	3	9.09
2005	27	81.82	3	9.09	3	9.09
2006	26	76.47	4	11.76	4	11.76
2007	28	77.78	3	8.33	5	13.89
2008	27	77.14	4	11.43	4	11.43
2009	28	73.68	4	10.53	6	15.79
2010	26	76.47	4	11.76	4	11.76
2011	28	73.68	3	7.89	7	18.42
2012	26	70.27	5	13.51	6	16.22
2013	26	74.29	4	11.43	5	14.29
2014	20	57.14	9	25.71	6	17.14
2015	20	57.14	10	28.57	5	14.29
2016	21	60	9	25.71	5	14.29
2017	19	55.88	9	26.47	6	17.65
2018	17	48.57	12	34.29	6	17.14
2019	16	42.11	16	42.11	6	15.79
2020	15	45.45	14	42.42	4	12.12
2021	15	45.45	14	42.42	4	12.12
Overall	519	67.93	143	18.72	102	13.35

The numbers of dental enrollment quotas determined by the Ministry of Education within the total amount control from 2017 to 2021.

During the past 5 years (from 2017 to 2021), the dental enrollment quotas determined by the Ministry of Education have maintained an annual enrollment quota of 371 enrollees. The total numbers of dental enrollees and registered dental students over the past 5 years were 1855 and 1838, respectively, with a registration rate of 99.08% (Table 4). For public dental schools, the total number of dental enrollees over the past 5 years was 401, accounting for 21.62% of a total of 1855 enrollees. The number of registered dental students was 397 with a registration rate of 99.11% (Table 4). For private dental schools, the total number of dental enrollees over the past 5 years was 1454, accounting for 78.38% of a total of 1855 enrollees. The number of registered students was 1441 with a registration rate of 99.11% (Table 4). For the SODNTU, the number of enrollees maintained between 29 and 30 each year. The total number of dental enrollees over the past 5 years was 147, accounting for 7.92% of a total of 1855 enrollees. The number of registered students was 144 with a registration rate of 97.96% (Table 4).

## Discussion

Since the SODNTU was established in 1953, the SODNTU has a 69-year experience so far for admissions of dental enrollees. For the first time in 1953, the dental school participated in the NTU's own examination admission system. At that time, 10 students applied, but none was admitted. For the second time in 1954, Taiwan's joint college entrance examination for admission of students into colleges and universities was implemented, and the dental school also participated in this joint admission system. In Taiwan, the university entrance system has long been based on traditional joint college entrance examination. In the 1990s, however, it had been widely criticized for its dominance in the admission of higher education and it was hoped that an alternative way of admission could be developed. Therefore, the trial operation of recommended selection for admission began in 1994.<sup>6–8</sup> Prior to this, our dental students were all screened entirely through a one-time paper-based entrance examination. However, the screening method is usually only based on the absolute score of the student. It is difficult to assess whether the selected students are capable of completing the degree of Doctor of Dental Surgery (DDS) and also possess the attributes to become a full contributing member of the dental profession.<sup>11</sup>

Because the average income of a dentist increases after the implementation of NHI in 1995, the dental schools in the universities become a popular choice by the high school graduates. Thus, the dental freshmen have a higher registration rate and a lower re-examination rate than before.<sup>12</sup> This study obtained the same result. The mean registration rate in the SODNTU over the past 22 years was 96.86%. Except for the admission way of examination admission and for that of overseas Chinese students, all other admission ways maintained a 100% registration rate (Table 2). Furthermore, since the introduction of the multiple entrance program in 1994, admission into dental schools

**Table 4** The determined enrollment quotas of dental schools within the total amount control and the registered dental students from 2017 to 2021.

	School of Dentistry of National Taiwan University						Public dental schools						Private dental schools						All dental schools					
	Admitted students		Registered students		Registration rate		Admitted students		Registered students		Registration rate		Admitted students		Registered students		Registration rate		Admitted students		Registered students		Registration rate	
	students	quotas	students	quotas	rate (%)	students	quotas	rate (%)	students	quotas	rate (%)	students	quotas	rate (%)	students	quotas	rate (%)	students	quotas	rate (%)	students	quotas	rate (%)	
2017	30	29.00	29.00	29.00	96.67	70	68	97.14	301	298	99.00	371	366	98.65	371	366	98.65	371	366	98.65	371	366	98.65	
2018	30	29.00	29.00	29.00	96.67	70	69	98.57	301	297	98.67	371	366	98.65	371	366	98.65	371	366	98.65	371	366	98.65	
2019	29	29.00	29.00	29.00	100	87	87	100	284	282	99.30	371	369	99.46	371	369	99.46	371	369	99.46	371	369	99.46	
2020	29	28.00	28.00	28.00	96.55	87	86	98.85	284	284	100	371	370	99.73	371	370	99.73	371	370	99.73	371	370	99.73	
2021	29	29.00	29.00	29.00	100	87	87	100	284	280	98.59	371	367	98.92	371	367	98.92	371	367	98.92	371	367	98.92	
Total dental enrollees	147	144	144	144	97.96	401	397	99.00	1454	1441	99.11	1855	1838	99.08	1855	1838	99.08	1855	1838	99.08	1855	1838	99.08	
Annual mean of dental enrollees	29.4	28.8	28.8	28.8	–	80.2	79.4	–	290.8	288.2	–	371	367.6	–	371	367.6	–	371	367.6	–	371	367.6	–	
<sup>a</sup> Proportion (%)	7.92	7.83	7.83	7.83	–	21.62	21.60	–	78.38	78.40	–	100	100	–	100	100	–	100	100	–	100	100	–	

<sup>a</sup> Proportion: The proportion of dental enrollees of the School of Dentistry of National Taiwan University, public dental schools, or private dental schools to the total number of dental enrollees of all dental schools in Taiwan.

has gradually become a competitive and multi-faceted process in Taiwan, especially for the admission into the SODNTU. After 2016, students admitted to SODNTU through examination admission need to take two kinds of paper-based examinations. In 2021, the number (proportion) of admitted students in the SODNTU through a paper-based entrance examination (examination admission) was 15 (45.45%). Those enrollees admitted through individual application admission, numerous stars initiatives admission, overseas Chinese students, and admission way of additional enrollment quotas were 18 (54.55%) (Table 1).

In individual application admission, students applied for entering the dental schools based on their personal interests. In numerous star initiatives admission, the senior high schools recommended their fresh graduates who met the recommendation criteria of each dental school. The admission way through additional enrollment quotas is through the above-mentioned admission ways or independent programs to screen the dental enrollees. The screening method is a multi-faceted and multi-step process, including the first screening by students' score of General Scholastic Ability Test (GSAT) and the dental school screening documents or tests that may include academic achievement at the senior high school, the interview, the short essay, the skill examination (drawing and engraving), and the subject examination. In addition, students' community service experience and personal statement and references are considered to be additional aspects.<sup>6</sup> Currently, the proportion of our dental students admitted through a one-time paper-based entrance examination or a multi-faceted and multi-step process is almost one to one. Therefore, it is also worthwhile to study whether there are differences in learning status, academic achievement, and career development of dental students who enter dental schools through different admission ways.

Since the dental schools became a popular choice and the multiple entrance program was implemented, admission to dental schools became a very competitive and multi-faceted process.<sup>6</sup> Our dental school enrollees were also diverse and outstanding at all levels. In addition to the winners of the International Mathematics or Science Olympiads and the International Science Fairs, the dental school enrollees admitted through examination admission are students with particularly high academic scores. For example, based on the minimum scores for admission to various dental schools or medical schools through examination admission, the SODNTU became the second highest scoring school for the first time in 2021. According to historical data about examination admission from the University Admission Committee, we estimated that there were 28,255 students competing for admission to dental schools or medical schools, 831 medical school enrollees had the scores higher than the minimum admission score of the SODNTU and the scores of 26 dental enrollees of the SODNTU in 2000, indicating that the students' score ranking should be in the top 857 (831 + 26) or 3.03% (857/28,255) then they could have the chances to be admitted to the SODNTU. By 2021, there were 12,231 students potentially competing for admission to dental schools or medical

schools, 52 medical school enrollees had the scores higher than the minimum admission scores of the SODNTU and the scores of 15 dental enrollees of the SODNTU, indicating that the students' score ranking should be in the top 67 (52 + 15) or top 0.55% (67/12,231), then they could have the chances to be admitted to the SODNTU. This also means that after more than 20 years of development, it is becoming more and more difficult to get admitted to the SODNTU.

Today, with the explosive and rapid accumulation of dental technology and knowledge, dental schools are facing more and more outstanding dental students. How to train these dental students to acquire enough core professional ability of differential diagnosis for oral and maxillofacial diseases, so that their diagnostic ability can keep up with dental treatment technology development, and how to enrich their humanistic quality and social caring sentiments are crucial issues. In fact, when the threshold and cost of becoming a dentist increase, these costs may be passed onto the patients and reflected in the medical behavior of dentists in the future. Because these students spend a lot of money to become licensed dentists, they tend to develop an easier dental practice way to earn the money back.<sup>10,13,14</sup> Therefore, as our dental school enrollees become more and more outstanding, how to train these outstanding students to become competent and good dentists is a great challenge.

While the SODNTU advertises its commitment to providing a learning environment with professional quality, excellent leadership, international perspective, humanistic ethics, and social care, the important issues that the staff of the SODNTU have to deal with are described as follows: 1) how to select students who meet the professional characteristics of dentistry, 2) how to train these dental students to acquire the professional ability of dentistry, 3) how to enable the dental students to make contributions to the dentist's profession in the future, and 4) how to meet the needs for the development of national dental policies.

The comparison of the performance by the students from different backgrounds is also a topic worthy of discussion. In particular, the numerous stars initiatives admission includes the art subject examination. It is worth exploring whether the students admitted through the numerous stars initiatives admission have better performance in dental technology or skill. On the other hand, we have dental students from various backgrounds, such as students with academic excellence, students with scientific giftedness, students who are overseas Chinese, and students from disadvantaged groups. Therefore, it is interesting to know whether the mixed learning by these dental students with different backgrounds can provide more opportunities to get a great achievement of the dental profession and further cultivate different types of talents for the dental profession, such as general dentists engaged in primary oral health care, dental specialists engaged in specialized dental cares, public welfare dentists engaged in oral health care for the remote villages and disadvantaged groups in Taiwan, scientists engaged in the research for basic medicine or dentistry, and dental teachers engaged in the education and training of oral



medicine. In addition, the tracking of career development of dental students from different backgrounds after graduation is also worth studying. We may eager to realize whether these dental students from different backgrounds are in line with their original educational goals. We hope that the results of these studies may serve as a reference for the formulation of future dental school admission policies.

This study found that the total number of enrollment quotas determined by the Ministry of Education for the SODNTU over the past 5 years (2017–2021) were 147. During the same period, we actually had 173 dental enrollees, which was 17.69% (26/147) more than the originally decided dental enrollment quotas. Various special admission ways outside the university admission system and additional enrollment quotas for special circumstances are the main reasons why the dental enrollment quotas are much larger than the originally controlled dental enrollment quotas. This is also common in dental schools other than the SODNTU.<sup>6</sup> However, too many extra dental school enrollees may exacerbate the problem of oversupply and uneven the distribution of dentists that should draw the attention of the relevant departments of Taiwan's government to search for the solutions.

The current dental school enrollment strategies and the educational philosophy of dental schools may affect the future dental workforce structure. In addition to clinical dentists, the sound development of the dental field also requires the participation of dental professionals at various levels. These include three aspects: clinical, basic, and social dentistry. In terms of clinical dentistry, we need not only advanced dental specialties for difficult and high-level dental treatments, but also general dentistry for oral health care of the communities, rural villages, and disadvantaged groups in Taiwan. In terms of basic dentistry, we need not only the research for a single dental treatment technology or skill, but also a comprehensive research in various fields of basic medicine and dentistry, as well as related teaching and research talents. In terms of social dentistry, we not only need the embellished medical humanities courses for dental students, but also try to fully enrich the connotation of social dentistry, such as the development of dental history and social dentistry courses, as well as research involving dental literature and dental history, so as to enrich the ability of dental schools to cultivate dentists with humanistic literacy.

In this study, we conclude that although the examination admission is still the predominant admission way, the individual application admission and numerous stars initiatives admission gradually play pivotal roles to enroll students into the SODNTU recently. It may need further studies to confirm whether the current dental school enrollment policy of the SODNTU is better than the old

dental school enrollment policy based on a one-time paper-based entrance examination.

## Declaration of competing interest

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

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