



Perspective article



A brief history of the Department of Dentistry from Taiwan Government Taipei Hospital to National Taiwan University Hospital (1906–2024)

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Japan ruled Taiwan since 1895 and immediately established the Great Japan Taiwan Hospital, initiating the development of the Taiwan's modern medical system. The hospital moved to its current location in 1898 and was officially named the Taiwan Government Taipei Hospital. It was the largest and most modern hospital in Southeast Asia at that time. In 1906, a dental treatment room was established within the Department of Surgery of Taiwan Government Taipei Hospital. It is the earliest predecessor of the Department of Dentistry of National Taiwan University Hospital (NTUH), the pioneer of hospital dentistry and the beginning of the modernization of dentistry in Taiwan.^{1–3} Its development has continued without interruption with a history of 118 years today. In the past, few studies have systematically described the historical development of Taiwan's oldest hospital-based dentistry, the Department of Dentistry of NTUH. We attempted to unearth the historical context of its evolution through the collection and analysis of the relevant historical documents.

This article used the historical research method to excavate the records of the Department of Dentistry from Taiwan Government Taipei Hospital in 1906 to NTUH in 2024 from the relevant documents, and extract the important innovation events in its institutional organization, educational activities, and clinical equipment. The important innovation events and their significance were made into a brief chronology of the historical development of the Department of Dentistry of NTUH, as shown in Table 1.

The dental treatment room, the first hospital dentistry in the Taiwan's history, was established within the Department of Surgery of Taiwan Government Taipei Hospital in 1906. It was not only the earliest predecessor of the Department of Dentistry of NTUH, but its director Dr. Masayoshi Tomisawa was also the first hospital dentist in Taiwan. Soon, the dental treatment room was upgraded to the Department of Dentistry in 1910. Before Dr. Kaname Ansawa served as the dental director in 1914, Dean Chojiro Inagaki temporarily acted as the dental director. However, this was the only case in which the dean temporarily acted as the dental director. Both Dean Inagaki and Dr. Ansawa graduated from the Tokyo Imperial University Medical Faculty and they specialized in the internal medicine and surgery, respectively. This might provide a good foundation for the general medicine in the development of the dental department of the hospital. Dr. Ansawa was also hired by the Taiwan Government Medical School to teach medical students the dentistry under the course of surgery. He was the first dental teacher in Taiwan. In 1918, the dentistry was reclassified as an independent subject in the medical curriculum. The Taiwan Government Medical School established the graduate department (including a dental classroom). In addition to serving as an internship place for the medical students, the dental department of the hospital became an educational institution for the medical students to study the dentistry after graduation. Moreover, the dental classroom was the earliest predecessor of the dental school of National Taiwan University (NTU). During the Japanese colonial period, however, the dental education in Taiwan was only designed for the medical students.

In 1919, the Taiwan Government Medical School was upgraded to the Taiwan Government Medical College. Therefore, the dental education was upgraded to the junior

college level. In 1920, Dr. Shizuo Kobayashi served as the dental director of the hospital. Then, in 1921, Dr. Kobayashi was also hired by the Taiwan Government Medical College to teach the dentistry. He graduated from the Japan Dental Medicine College. Therefore, he became the first dental teacher with a dental background in Taiwan. Moreover, in December 1928, Dr. Heijirou Oohashi was appointed as a professor of the Taiwan Government Taipei Medical College to teach the dentistry. Soon, in January 1929, Dr. Oohashi served as the director of the Department of Dentistry until the end of the World War II in August 1945. Therefore, he was the last dental director during the Japanese colonial period. During his tenure, the Taiwan Government Taipei Hospital was transformed into the Affiliated Hospital of the Medical Faculty of Taipei Imperial University. The Taipei Imperial University established the Chair of Dentistry in the Medical Faculty. He was appointed as the teacher in charge of the Chair of Dentistry. In Taiwan, the dental education was pushed to the highest peak to the university level.

After the World War II, the Affiliated Hospital of the Medical Faculty of Taipei Imperial University was transformed into the NTUH in November 1945. Dr. Shwei Kuo served as the first director of the Department of Dentistry of NTUH after the World War II.⁴ He was also the first Taiwanese dental director in the history of the dental department of NTUH. During his tenure, he was assigned to develop the dental education designed for cultivating the dentists. Then, the dental school of NTU was established in 1953.⁵ In the 1960s, with the assistance of the U.S. Aid, the dental department's institutional organization, educational activities, and clinical equipment continued to grow and expand. Moreover, the major innovations in the dental department occurred in the 1970s. In the dental outpatient clinic of the dental department, all the sitting-type dental chairs were replaced by the horizontal dental chairs, and the dental treatment model was transformed into a four-handed dentistry model, promoting the evolution of dental treatment model in Taiwan. Due to the restructure of the dental outpatient clinic and the establishment of the various dental specialty clinics, a training system for the dental specialists was developed. Besides, the independent dental radiology room with a dedicated medical radiation technologist was established within the dental outpatient clinic.

The 1980s was an important period for the dental department to develop its postgraduate dental specialist training. In 1984, the dental department welcomed its first female director, Dr. Hsueh-Wan Kwan.⁶ With her efforts, the dental graduate institute of NTU, the Graduate Institute of Dental Sciences, was established in 1988. There were 8 major subjects related to the dental specialties in this dental graduate institute, while the dental department of the hospital offered the clinical internship courses for the postgraduate students. Thus, a formal training system combined with the academic research for the dental specialists was developed. From the 1990s to the present, the dental department has continued to grow and expand in terms of organization, teaching, research, and services. Due to the national health insurance (NHI) system covering the dentistry implemented since 1995, the profession of dentistry is increasingly favored by our social value system.^{7–9} In 2008, the dental college of NTU was established

Table 1 The brief chronology of the historical development of the Department of Dentistry of National Taiwan University Hospital (NTUH).

| | Year | Month | Important innovation events and their significance |
|----|------|-------|---|
| 1 | 1906 | 1 | The Taiwan Government Taipei Hospital established a dental treatment room within the Department of Surgery. All dental instruments were purchased from the mainland of Japan. It was the earliest hospital dentistry in the Taiwan's dental history. Dr. Masayoshi Tomisawa served as the director. (Until June 1907, he went to study in the United States.) He was the first hospital dentist in Taiwan. |
| 2 | 1910 | 9 | The dental treatment room was separated from the Department of Surgery and became the Department of Dentistry. Dr. Tomisawa received a doctorate degree in medicine. He returned as the director of the Department of Dentistry. (Until October 1912, he returned to Tokyo, Japan to open his own dental clinic.) He was the first dentist with a doctorate degree in Taiwan. |
| 3 | 1914 | 2 | Dean Chojiro Inagaki concurrently served as the director of the Department of Dentistry till April 1914. He graduated from the Tokyo Imperial University Medical Faculty, had a doctorate degree in medicine, and specialized in the internal medicine. This was the only case in which the dean temporarily acted as the director of the Department of Dentistry. |
| 4 | 1914 | 4 | Dr. Kaname Ansawa served as the director of the Department of Dentistry. (Until December 1920, he went to study in Germany.) He graduated from the Tokyo Imperial University Medical Faculty and specialized in the surgery, especially in the field of oral surgery. |
| 5 | 1914 | 5 | Dr. Ansawa was appointed as a lecturer in the Taiwan Government Medical School, teaching medical students the dentistry under the course of surgery. He was promoted to professor in the following year. He was the first dental teacher in Taiwan. This dentistry course was the earliest dental education designed for the medical students in Taiwan. |
| 6 | 1918 | | The learning content of dentistry became an independent subject in the curriculum of the Taiwan Government Medical School. The Taiwan Government Medical School established the graduate department (including a dental classroom). In addition to serving as an internship place for the medical students, the Department of Dentistry became an educational institution for the medical students to study the dentistry after graduation. Moreover, the dental classroom was the earliest predecessor of the dental school of National Taiwan University (NTU). |
| 7 | 1919 | | The Taiwan Government Medical School was upgraded to the Taiwan Government Medical College. In Taiwan, the dental education was upgraded to the junior college level. |
| 8 | 1920 | 12 | Dr. Shizuo Kobayashi served as the director of the Department of Dentistry. (Until May 1923, he left his job to open his own dental clinic in Taipei.) |
| 9 | 1921 | 11 | Dr. Kobayashi was appointed as an associate professor of the Taiwan Government Medical College to teach dentistry. He graduated from the Japan Dental Medicine College. He was the first dental teacher with a dental background in Taiwan. Moreover, he received a doctorate degree in medicine in 1938. |
| 10 | 1923 | 5 | Dr. Ansawa received a doctorate degree in medicine. He returned as the director of the Department of Dentistry. (Until July 1926, he returned to Japan.) He is the first dental teacher with a doctorate degree in Taiwan. |
| 11 | 1928 | 12 | Dr. Heijirou Oohashi was appointed as a professor of the Taiwan Government Taipei Medical College to teach dentistry. He graduated from the Japan Dental Medicine College. |
| 12 | 1929 | 1 | Dr. Oohashi served as the director of the Department of Dentistry until the end of the World War II in August 1945. |
| 13 | 1938 | 4 | The Taiwan Government Taipei Hospital was transformed into the Affiliated Hospital of the Medical Faculty of Taipei Imperial University. Moreover, he received a doctorate degree in medicine in 1933. |
| 14 | 1939 | 1 | The Taipei Imperial University established the Chair of Dentistry in the Medical Faculty. Dr. Oohashi was appointed as the teacher in charge of the Chair of Dentistry. In Taiwan, the dental education was upgraded to the university level. |
| 15 | 1945 | 11 | The Affiliated Hospital of the Medical Faculty of Taipei Imperial University was transformed into the National Taiwan University Hospital (NTUH) after the World War II. |
| 16 | 1945 | 12 | Dr. Shwei Kuo served as the first director of the Department of Dentistry of NTUH after the World War II until the end of his tenure as the director in July 1972. He was also the first Taiwanese dental director in the history of the dental department. |
| 17 | 1946 | 10 | Dr. Kuo was appointed as a lecturer in the College of Medicine of Nation Taiwan University (NTU), teaching medical students dentistry. |
| 18 | 1950 | 8 | The NTUH has implemented a residency system for the clinicians, and the Department of Dentistry has also launched a residency system for the dentists. |
| 19 | 1953 | 8 | The NTU established the dental school in the College of Medicine. |
| 20 | 1957 | 8 | The dental outpatient clinic established an oral surgery room. |
| 21 | 1959 | 12 | The U.S. Aid donated 20 dental chairs and 5 special dental chairs for tooth extraction to the dental |

Table 1 (continued)

| Year | Month | Important innovation events and their significance |
|------|-------|---|
| 22 | 1960 | outpatient clinic of NTUH, and assisted in the purchase of the Taiwan's first high-speed tooth grinding machine "AirBorden". |
| 23 | 1970 | The first batch of interns from the dental school of NTU went to the Department of Dentistry of NTUH for their practice. |
| 24 | 1974 | 10 A permanent dental ward was officially established. |
| 25 | 1974 | 12 In the dental outpatient clinic, all the sitting-type dental chairs were replaced by the horizontal dental chairs, and the dental treatment model was transformed into a four-handed dentistry model, promoting the evolution of dental treatment model in Taiwan. |
| 26 | 1979 | The dental outpatient clinic was restructured, and the various dental specialty clinics were established. Based on this, a training system for the dental specialists was developed. |
| 27 | 1980 | 9 An independent dental radiology room was established within the dental outpatient clinic. |
| 28 | 1983 | 6 A dedicated medical radiation technologist was employed to manage the dental radiology room in the Department of Dentistry. |
| 29 | 1984 | 6 The NTUH has implemented a training system for the out-of-hospital medical personnel (including physicians and dentists), and the Department of Dentistry has also launched a training system for the out-of-hospital dentists. |
| 30 | 1988 | 8 Dr. Hsueh-Wan Kwan served as the director of the Department of Dentistry of NTUH until the end of her tenure as the director in July 1988. She was the first and to date the only female director in the history of the dental department of NTUH. |
| 31 | 1991 | 8 The NTU established the Graduate Institute of Dental Sciences with the master's program divided into the following subjects: (1) Oral Pathology; (2) Operative Dentistry; (3) Endodontics; (4) Periodontics; (5) Prosthodontics; (6) Pediatric Dentistry; (7) Orthodontics; and (8) Oral and Maxillofacial Surgery, while the Department of Dentistry offered the clinical internship courses for the postgraduate dental students. Thus, a formal training system combined with the academic research for the dental specialists was developed. |
| 32 | 1995 | 5 The Graduate Institute of Dental Sciences added the doctoral program, while the Department of Dentistry offered the clinical internship courses for the doctoral students. |
| 33 | 1996 | 5 The Department of Dentistry established functional divisions to form the basic structure for the development of the dental specialties in Taiwan, which were divided into the following subjects: (1) Oral Pathology and Diagnosis; (2) General Family Dentistry; (3) Operative Dentistry; (4) Endodontics; (5) Periodontics; (6) Prosthodontics; (7) Pediatric Dentistry; (8) Orthodontics; and (9) Oral and Maxillofacial Surgery. |
| 34 | 1997 | 8 The Graduate Institute of Dental Sciences was renamed as the Graduate Institute of Clinical Dentistry. |
| 35 | 1998 | 8 The NTU established the Graduate Institute of Oral Biology with the master's program. |
| 36 | 2008 | 8 The Department of Dentistry implemented an out-of-school dental intern training system. The first batch of interns from the dental schools in Taiwan other than the dental school of NTU went to the Department of Dentistry of NTUH for their dental internship. |
| 37 | 2010 | 8 The dental college of NTU was established with one undergraduate department (the Department of Dentistry) and two graduate institutes (the Graduate Institute of Clinical Dentistry and the Graduate Institute of Oral Biology), while the Department of Dentistry provided resources for their education and training to upgrade the quality of dental education. |
| 38 | 2013 | 8 The Department of Dentistry implemented the 2-year Postgraduate Year Training Program for Dentists (PGYD or dental PGY). The first batch of dental PGY trainees went to the Department of Dentistry of NTUH for their training. |
| 39 | 2014 | 8 The Graduate Institute of Oral Biology established the doctoral program. |
| 40 | 2024 | 5 The National Taiwan University Children's Hospital (NTUCH) was established. The Division of Pediatric Dentistry was established within the Department of Pediatric Surgery of NTUCH, while its dental staff was supported by the Department of Dentistry of NTUH. |
| | | The Department of Dentistry of NTUH was officially renamed as the Department of Oral Medicine. The mission of the Department of Oral Medicine was the diagnosis, treatment, teaching, and research of the various oral and dental diseases, which were further divided into the following divisions: (1) Family Dentistry; (2) Oral Pathology and Diagnosis; (3) Operative and Cosmetic Dentistry; (4) Endodontics; (5) Periodontics; (6) Prosthodontics; (7) Pediatric Dentistry; (8) Orthodontics; (9) Oral and Maxillofacial Surgery; and (10) Oral Medicine for People with Special Needs. These 10 divisions corresponded to the current 10 dental specialties, and each division was recognized by the government and had the qualifications to conduct the dental specialist training. |

with one undergraduate department (the Department of Dentistry) and two graduate institutes (the Graduate Institute of Clinical Dentistry and the Graduate Institute of Oral Biology), while the Department of Dentistry of the hospital provided resources for their education and training to upgrade the quality of dental education.

Furthermore, in 2024, the Department of Dentistry of NTUH was officially renamed as the Department of Oral Medicine. Its mission was the diagnosis, treatment, teaching, and research of the various oral and dental diseases, which were further divided into the following divisions: (1) Family Dentistry; (2) Oral Pathology and Diagnosis; (3) Operative and Cosmetic Dentistry; (4) Endodontics; (5) Periodontics; (6) Prosthodontics; (7) Pediatric Dentistry; (8) Orthodontics; (9) Oral and Maxillofacial Surgery; and (10) Oral Medicine for People with Special Needs. These 10 divisions corresponded to the current 10 dental specialties, and each division was recognized by the government and had the qualifications to conduct the dental specialist training.¹⁰

The Department of Dentistry of NTUH is the oldest dental institution in Taiwan. Due to the development of civilization and the leap forward in the medical care, the people's quality of life has improved and the people's average life span has also increased. Therefore, the people's demand for the oral health care has increased significantly, both in terms of quantity and quality, in order to maintain the people's oral health, function, and aesthetics. These factors have contributed to the explosive growth and accumulation of knowledge in the field of the dentistry, and have also driven the expansion of the Department of Dentistry of NTUH, in terms of its institutional organization, educational activities, and clinical equipment. Today, it is also the largest dental institution in Taiwan, with at least 150 dentists currently registered here. Among them, according to the NTUH registration system, there are 44 full-time attending dentists, and most of them have the status of teachers in the dental school of NTU. In addition to the main hospital, all eight branches of NTUH also have the dental departments. The number of dentists working in the NTUH system accounts for at least 1 % of all practicing dentists in Taiwan. Adhering to its fine tradition, it has a complete contribution to improve the dental education (including the education and training for dental undergraduate students, interns, graduate students, PGY trainees, and specialists), the dental academic research, and the medical care related to dentistry in Taiwan, in order to pursue excellence in the dental sciences, thereby serving the public and enhancing the oral

health care in Taiwan.⁵ Moreover, the Department of Dentistry of NTUH was changed to the Department of Oral Medicine, which just shows the rapid development of contemporary dental sciences.

Declaration of competing interest

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

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None.

References

- Cheng FC, Wang LH, Ozawa N, Wang CY, Chang JYF, Chiang CP. Dental technology of Taiwan during the Japanese colonial period. *J Dent Sci* 2022;17:882–90.
- 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.
- 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.
- Cheng FC, Chiang CP. A pioneer in the paradigm shift of dental education in Taiwan: in memory of Dr. Shwei Kuo (1913–1997). *J Dent Sci* 2024;19:1859–62.
- Cheng FC, Wang CY, Chiang CP. The historical context of the establishment of the Department of Dentistry of National Taiwan University. *J Dent Sci* 2024;19:736–40.
- Cheng FC, Chang JYF, Chiang CP. A gentle force to complete a great education plan of oral pathology in Taiwan: in memory of Dr. Hsueh-Wan Kwan (1923–2022). *J Dent Sci* 2023;18:1965–7.
- 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.
- 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.
- Cheng FC, Wang YL, Wang LH, Chang JYF, Liu SY, Chiang CP. Overview of dental education system and gender distribution of undergraduate dental students in Taiwan. *J Dent Sci* 2023; 18:420–7.
- Cheng FC, Wang LH, Wang YL, Chiang CP. Overview of the dental specialist system in Taiwan. *J Dent Sci* 2023;18: 1909–11.