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Clinical Report

**Recent Trends among Dental Residents at Tokyo Dental College
— Orientation Seminar on Dental Residency Program,
Applicants for Residency, Candidates, Pass Rate
and Admission —**

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Abstract

Trends among dental residents at Tokyo Dental College between 2006, at which time clinical residency became mandatory, and 2011 were analyzed and the following results obtained. Almost all the eligible students from our school participated in the orientation seminar on dental residency programs. Although the number varied slightly by year, approximately 70 to 150 students from other schools also participated in these orientation seminars. Almost all the students from our school and 60 to 80% of those from other schools participating in the orientation seminar each year applied to sit the dental residency entrance examination. The number of candidates was highest in 2006 (318) and lowest in 2010 (205) (average: 248), and the applicant-to-seat ratio for residency was 1.59. The examination pass rate was 59.02%. Approximately 10% of the students from other schools were admitted as dental residents.

Key words: Orientation seminar on dental residency programs—
Applicants for residency—Candidates—Pass rate—Admission

Introduction

Under the 1996 revision of the Dental Practitioners Act, whether to undertake post-graduate clinical training was left up to the discretion of the newly qualified dentists themselves. In 2000, however, this Act was revised together with the Medical Care Act and Medical Practitioners Act, with clinical residency subsequently becoming mandatory for physicians from 2004 and dentists from 2006¹⁾. Against this background, Tokyo Dental College developed a set of clinical residency programs aimed at providing training at each of its three facilities: the Chiba Hospital, Ichikawa General Hospital, and Suidobashi Hospital.

The newly revised Dental Practitioners Act stated that "Clinical residency programs must provide dentists with the opportunity to cultivate their own personality as professional dentists, acquire basic skills, obtain a deep understanding of the role of dental medicine, and provide appropriate treatment for the types of injury and disease that they are most likely to often encounter in daily practice, irrespective of their area of specialization". Therefore, the programs developed by Tokyo Dental College were tailored to meet these requirements. The present authors have already reported on clinical care provided by dental residents^{5,7)}, the approach to improving initial residency programs⁴⁾, cooperative clinical training facilities^{3,6)}, specialized training²⁾, and a matching system within a clinical training facilities group⁸⁾.

The purpose of this study was to analyze trends among dental residents at Tokyo Dental College after clinical residency training became mandatory in 2006, focusing on the numbers of 1) participants attending orientation seminars on the dental residency programs, 2) applicants for the residency entrance examination, 3) candidates, 4) students who passed the examination, and 5) students admitted.

Subjects and Methods

Tokyo Dental College offers clinical resi-

dency programs at each of its three facilities: the Chiba Hospital, Ichikawa General Hospital, and Suidobashi Hospital. A total of 698 residents have completed these residency training programs since their inception in 2006.

Each of the above facilities offers its own independently developed program and accepts many dental residents every year. The college currently operates a total of 7 programs: programs A, B, C, and D at the Chiba Hospital; programs A and B at the Suidobashi Hospital; and program A at the Ichikawa General Hospital.

The program A provided at the Chiba Hospital is a single-type course, and the number of positions offered on this program was 32 from fiscal year (FY) 2006 to 2010 and 30 in FY2011. Programs B, C, and D are management-type courses. The number of positions offered on program B was 30 from FY2006 to 2010 and 24 in FY2011; that for program C was 66 in each year; and that for program D, which was newly prepared from FY2011, was 8. The total number of positions offered each year was 128.

The program A provided at the Suidobashi Hospital is a single-type course, and the number of positions offered on this program was 5 in FY2006 and 2007, 10 in FY2008 and 2009, and 7 in FY2010 and 2011. Program B is a management-type program, and the number of positions offered on this program was 10 from FY2006 to 2009 and 8 in FY2010 and 2011. In FY2006 and 2007, 5 positions were offered on program C, which is a management-type course. The total number of positions offered in each year was 20 from FY2006 to 2009 and 15 in FY2010 and 2011.

The program A provided at the Ichikawa General Hospital is a single-type course, and the number of positions offered on this program was 12 in FY2006 and 2007, 10 in FY2008, and 8 from FY2009 to 2011.

Based on the records of past residency programs, we summarized the data and analyzed the number of 1) participants attending orientation seminars on the dental residency programs, 2) applicants for the residency

Table 1 Number of participants at orientation seminar on dental residency programs

Year	2006	2007	2008	2009	2010	2011
Students from our school	156	146	159	161	156	152
Students from other schools	356	153	98	155	74	95
Total	512	299	257	316	230	247

Unit: person

Table 2 Participation rate among students from our school entitled to apply for residency and rate of application for residency entrance examination among students from our school

Year	2006	2007	2008	2009	2010	2011
Students entitled to apply for residency	156	152	157	167	158	162
Participants	156	146	151	160	156	152
Participation rate	100	96.05	96.18	95.81	98.73	93.83
Applicants	156	152	154	166	158	154
Application rate	100	100	98.09	99.4	100	95.06

Unit: person, %

entrance examination, 3) candidates, 4) students who passed the examination, and 5) students admitted who worked at the Chiba, Suidobashi, or Ichikawa General Hospitals of Tokyo Dental College between FY2006 and 2011.

Results and Discussion

1. Number of participants attending orientation seminars on the dental residency programs

Orientation seminars on the dental residency programs for the students of Tokyo Dental College are held at each of the three hospitals involved at the beginning of July and for students from other schools at the beginning of August.

A total of 512, 299, 257 (including 8 fifth-year students), 316 (including one fifth-year student), 230, and 247 students from our school and other schools participated in the orientation seminars in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively. The num-

ber of participants from other schools was highest in FY2006 (356), after which approximately 70 to 150 such students participated in the orientation seminar each year. The total number of participants from our and other schools was also highest in FY2006 (512), after which it ranged between 230 and 300 (Table 1).

The above-mentioned number of participants from our school represents the total sum of fifth-year, sixth-year, and postgraduate students. Excluding fifth-year students (total sum of sixth-year and postgraduate students), the number of our students entitled to apply for residency was 156, 152, 157, 167, 158, and 162 in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively. The participation rate, which was calculated by dividing the number of students from our school participating in the orientation seminars by that of our students entitled to apply for residency, was 100, 96.05, 96.18, 95.81, 98.73, and 93.83% in 2006, 2007, 2008, 2009, 2010, and 2011, respectively, showing that almost all students from our school participated in these events (Table 2).

Table 3 Number of applicants for residency entrance examination

Year	2006	2007	2008	2009	2010	2011
Students from our school	156	152	154	166	158	154
Students from other schools	172	91	80	118	50	74
Total	328	243	234	284	208	228

Unit: person

Table 4 Rate of application for residency entrance examination among students from other schools

Year	2006	2007	2008	2009	2010	2011
Students participating orientation seminar	356	153	98	155	74	95
Applicants	172	91	80	118	50	74
Application rate	48.31	59.48	81.63	76.13	67.57	77.89

Unit: person, %

No student wishing to participate in a residency program at another hospital facility participated in the orientation seminar at our school.

2. Number of applicants for residency entrance examination

The entrance examination for clinical residency at the three hospitals involved is held at the end of August or beginning of September each year. The examination consists of a multiple-choice examination aimed at evaluating the candidate's level of knowledge, an essay, and an interview to assess their attitude.

The total number of applicants for the residency entrance examination was 328, 243, 234, 284, 208, and 228 in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively. The number of applicants was highest in 2006 and lowest in 2010, and was approximately 230 in other years (Table 3).

The rate of application for the residency entrance examination among students from our school, which was calculated by dividing the number of our students applying for the residency entrance examination by that of those from our school entitled to apply for residency, was 100, 100, 98.09, 99.4, 100,

and 95.06% in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively, showing that almost all students from our school applied for residency (Table 2).

The rate of application for the residency entrance examination among students from other schools, which was calculated by dividing the number of students from other schools applying for the residency entrance examination by that of those from other schools participating in the orientation seminar, was 48.31, 59.48, 81.63, 76.13, 67.57, and 77.89% in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively. The application rate was highest in 2008 and lowest in 2006, ranging between approximately 60 and 80% in the other years (Table 4).

3. Number of candidates

Several students were unable to sit the examination each year. The number of students unable to take the examination was 10, 7, 2, 11, 3, and 6 (total: 39) in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively (Table 5). Thus, the number of candidates in FY2006, 2007, 2008, 2009, 2010, and 2011 was 318, 236, 232, 273, 205, and 222 (total: 1,486, average: 248), respectively, showing

Table 5 Number of students who did not take examination

Year	2006	2007	2008	2009	2010	2011	Total
Students from our school	0	1	0	3	2	2	8
Students from other schools	10	6	2	8	1	4	31
Total	10	7	2	11	3	6	39

Unit: person

Table 6 Number of candidates and applicant-to-seat ratio for residency examination

Year	2006	2007	2008	2009	2010	2011	Total
Students from our school	156	151	154	163	156	152	932
Students from other schools	162	85	78	110	49	70	554
Candidates	318	236	232	273	205	222	1,486 (mean: 248)
Number of seats	160	160	158	156	151	151	936
Applicants per seat	1.99	1.48	1.47	1.75	1.36	1.47	1.59 (mean)

Unit: person, applicants per seat

Table 7 Number of students passing examination and pass rate

Year	2006	2007	2008	2009	2010	2011	Total
Students from our school	140	132	132	137	127	126	794
Students from other schools	20	11	20	14	23	18	106
Students passing examination	160	143	152	151	150	144	900
Applicants	328	243	234	284	208	228	1,525
Examination pass rate	48.78	58.85	64.96	53.17	72.12	63.16	59.02 (mean)

Unit: person, %

that the number of candidates was highest in FY2006 and lowest in FY2010 (Table 6).

The number of residency positions offered by Tokyo Dental College was 160 in FY2006 and 2007, 158 in 2008, 156 in 2009, and 151 in 2010 and 2011. The applicant-to-seat ratio, which was calculated based on the above number, was 1.99, 1.48, 1.47, 1.75, 1.36, and 1.47 applicants per position (average: 1.59) in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively (Table 6).

4. Number of students passing examination

Examination results are released at the end of October every year. The number of students who passed the examination was 160 out of 328 applicants in FY2006, 143 out of 243 applicants in FY2007, 152 out of 234 applicants in FY2008, 151 out of 284 applicants in FY2009, 150 out of 208 applicants in FY2010, and 144 out of 228 applicants in FY2011 (Table 7).

The examination pass rate, which was calcu-

Table 8 Number of students admitted

Year	2006	2007	2008	2009	2010	2011	Total
Students from our school	113	99	99	106	104	97	618
Students from other schools	13	11	16	13	19	13	85
Total	126	110	115	119	123	110	703
Percentage of students admitted from other schools	10.32	10	13.91	10.92	15.45	11.82	12.09 (mean)

Unit: person, %

lated by dividing the number of students passing the examination by that of applicants, was 48.78, 58.85, 64.96, 53.17, 72.12, and 63.16% in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively. The pass rate was highest in FY2010 and lowest in 2006. The mean examination pass rate was 59.02% (Table 7).

The pass rate showed a tendency to increase each year. This may change, however, depending on the number of applicants, as the number of positions is pre-determined.

5. Number of students admitted

The total number of students admitted to the three hospitals was 126, 110, 115, 119, 123, and 110 in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively. The percentage of students from other schools was 10.32, 10, 13.91, 10.92, 15.45, and 11.82% (average: 12.09%) in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively, showing that it was highest in FY2010 and lowest in FY2007, and that an average of over 10% of dental residents from other schools were admitted each year (Table 8).

At the Chiba Hospital, the percentage of students from other schools was 6.32, 2.41, 9.78, 5.32, 12.5, and 8.89% (average: 7.71%) in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively, showing that it was highest in FY2010 and lowest in FY2007, and that an average of less than 10% of dental residents from other schools were admitted each year (Table 9).

At the Suidobashi Hospital, the percentage of students from other schools was 26.32,

21.05, 42.86, 26.32, 36.36, and 6.67% (average: 25.77%) in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively, showing that it was highest in FY2008 and lowest in FY2011, and that an average of over 20% of students from other schools were admitted each year (Table 9).

At the Ichikawa General Hospital, the percentage of students from other schools was 16.67, 62.5, 11.11, 50, 25, and 80% (average: 35.42%) in FY2006, 2007, 2008, 2009, 2010, and 2011, respectively, showing that it was the highest in FY2011 and lowest in FY2008, and that an average of over 30% of students from other schools were admitted each year (Table 9).

Of the three hospitals, the percentage of students admitted from other schools was the highest for the program A conducted at the Ichikawa General Hospital. This program was prepared with the aim of securing the best students from not only Tokyo Dental College, but also other schools. To achieve this, the program offered the participants the opportunity to study perioperative oral management, including systemic management and that of feeding/swallowing function, in addition to dental surgery. This may explain why so many students from other schools applied for this particular program.

Conclusion

The aim of the present study was to analyze trends among dental residents at the Chiba

Table 9 Number of students from other schools admitted to Chiba Hospital, Suidobashi Hospital, or Ichikawa General Hospital

Year	2006	2007	2008	2009	2010	2011	Total
Students from other schools to Chiba Hospital	6	2	9	5	13	8	43
Total number of students admitted	95	83	92	94	104	90	558
Admission rate	6.32	2.41	9.78	5.32	12.5	8.89	7.71 (mean)
Students from other schools to Suidobashi Hospital	5	4	6	5	4	1	25
Total number of students admitted	19	19	14	19	11	15	97
Admission rate	26.32	21.05	42.86	26.32	36.36	6.67	25.77 (mean)
Students from other schools to Ichikawa General Hospital	2	5	1	3	2	4	17
Total number of students admitted	12	8	9	6	8	5	48
Admission rate	16.67	62.5	11.11	50	25	80	35.42 (mean)

Unit: person, %

Hospital, Suidobashi Hospital, and Ichikawa General Hospital of Tokyo Dental College, focusing on the numbers of 1) participants attending the orientation seminar on the dental residency programs, 2) applicants for the residency entrance examination, 3) candidates, 4) students who passed the examination, and 5) students admitted.

The results revealed that almost all eligible students from our school participated in the orientation seminar on the dental residency programs. Although the number varied slightly by year, approximately 70 to 150 students from other schools also participated in the orientation seminar. Almost all the students from our school and 60 to 80% of those from other schools participating in the orientation seminar each year applied to sit the dental residency entrance examination. The number of candidates was highest in 2006 (318) and lowest in 2010 (205) (average: 248), and the applicant-to-seat ratio for residency was 1.59. The examination pass rate was 59.02%. Approximately 10% of students from other schools were admitted as dental residents.

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