

CHAPTER IV

RESULTS

A total of 86 out of 101 questionnaires was returned from the Faculty staffs in 10 clinical departments for a response rate of 61 percent in the first round and increased to 85 percent after letters of reminder were sent to non-responders. The numbers of questionnaires distributed and the numbers of the respondents in each round according to their departments are shown in Table 4.1

For the dental practitioners, 150 out of 276 questionnaires were returned after the first round of mailing. Three questionnaires were excluded from analyses for various reasons. One questionnaire was returned because of the address error. One was returned because the subject went to study abroad so her parents returned the questionnaire back and the last one was returned because the responder did not want to give any opinion as she thought the competency statements in the questionnaire were too complex. Nevertheless, the total questionnaires accepted for analyses from the first round of mailing were 147, already exceeded the calculated sample size of 138. So no letter of reminder was sent to the dental practitioners that did not respond. The response rate was 53.3 percent.

The data obtained would be presented as followed:

In the first part, the results of the baseline data would be laid out. The baseline data that were similar in characteristics between the Faculty staffs and the dental practitioners would be presented in the same tables for ease of

comparison. The baseline data that were not similar in characteristics would be presented in separate tables.

Table 4.1 : Number of questionnaires distributed and the number and percentage of the respondents according to the departments

Subjects	No. of question Naire launched	1 st round collected number (%)		2 nd round collected number (%)		Total returned number (%)	
Community Dentistry	6	2	(33.3)	2	(33.3)	4	(67)
Occlusion	7	5	(71)	1	(15)	6	(86)
Operative Dentistry	15	13	(87)	2	(13)	15	(100)
Oral Medicine	8	6	(75)	2	(25)	8	(100)
Oral Surgery	11	4	(36)	5	(45)	9	(81)
Orthodontics	11	6	(55)	2	(17)	8	(72)
Pediatric Dentistry	8	4	(50)	3	(37)	7	(87)
Periodontology	10	9	(90)	-	(-)	9	(90)
Prosthodontics	22	11	(50)	7	(32)	18	(82)
Radiology	3	2	(67)	-	(-)	2	(67)
Total	101	62	(61)	24	(24)	86	(85)
Dental Practitioners	276	147	(53.3)	-	(-)	147	(53.3)

In the second part, the results of the opinions regarding the competency standards for new dental graduates would be summarized. The data would be present with an overview of the data obtained and followed by the results of each major competency. For each major competency, an overview together with the results of the close-end and open-end questions of both Faculty staffs and dental practitioners would be presented.

4.1 BASELINE DATA

4.1.1 DEMOGRAPHIC DATA

The demographic data of the Faculty staffs and the dental practitioners are presented in Table 4.2

4.1.1.1 SEX

The ratios of female were higher than male in both groups. However, the ratio of male and female in the Faculty staffs group was not quite different (female: male = 56.5%: 43.5%) but was markedly different in the dental practitioners group.(female: male = 66% :34%)

4.1.1.2 AGE

For the Faculty staffs, the age of the respondents ranged from 30 to 60 years with the average age of 45.68 ± 8.38 years. From Table 4.2, it was found that 71.76% of the faculty staffs had the age between 40-59. The age of the dental practitioners ranged from 24 to 62 years with the average age of 34.87 ± 8.36 years. About 74.12% of the dental practitioners had the age from less than 30 up to 39, which was quite different from the Faculty staffs group.

Table 4.2 : Demographic data of the Faculty staff and the dental practitioners

DEMOGRAPHIC DATA	Faculty staffs		Dental Practitioners	
	No	%	No	%
SEX				
Male	37	43.50	50	34.00
Female	48	56.50	97	66.00
Total	85	100.00	147	100.00
AGE				
< 30	-	-	49	33.33
30-39	22	25.88	60	40.82
40-49	33	38.82	28	19.05
50-59	28	32.94	9	6.12
≥ 60	2	2.35	1	0.68
Total	85	100.00	147	100.00
PREVIOUS RESIDENCE				
Bangkok	50	58.82	56	38.10
Other provinces	34	40.00	89	60.54
Missing Data	1	1.18	2	1.36
Total	85	100.00	147	100.00

4.1.1.3 PREVIOUS RESIDENCE

Around 60% of the Faculty staffs had previous residences in Bangkok and the other 40% had residences in other provinces. The reverse is true for the dental practitioners. Around 60% of the dental practitioners had previous domicile in other provinces and just 40% of them had residences in Bangkok.

4.1.2 ACADEMIC BACKGROUNDS

Academic backgrounds for both groups are shown in Table 4.3.

4.1.2.1 YEARS AFTER GRADUATION

The majority (88%) of the Faculty staffs obtained their first degree for more than 10 years ago compared to around 42% of the dental practitioners.

4.1.2.2 PLACES OF GRADUATION

The majority (89%) of the Faculty staffs graduated from Chulalongkorn University. However, the name of Universities in the degree they obtained varied from University of Medical Sciences (6%), Mahidol University (16%) or Chulalongkorn University (67%) depending on the periods the Faculty of Dentistry used to be under supervision. This Dental School has different names in different times.

For the dental practitioners, about half (47%) of the respondents graduated from Chulalongkorn University. The rest graduated from other Universities including Chiangmai University, Konkaen University, Mahidol University, and the Prince of Songkla University. One dental practitioner graduated from the Phillipines.

Table 4.3 : Educational experiences of the Faculty staffs and the dental practitioners

EDUCATIONAL EXPERIENCES

EDUCATIONAL EXPERIENCE:	FACULTY STAFFS		DENTAL PRACTITIONERS	
	No	%	no	%
YEARS AFTER GRADUATION				
< 5	-	-	38	25.85
5-10	10	11.76	47	31.97
11-15	12	14.12	25	17.01
> 15	63	74.12	37	25.17
Total	85	100.00	147	100.00
GRADUATED FROM				
Chulalongkorn U.	76	89.41	70	47.62
Chiangmai U.	3	3.53	33	22.45
Konkaen U	-	-	14	9.52
Mahidol U.	4	4.71	20	13.61
Prince of Songkla U.	-	-	9	6.12
Others	2 (USA)	2.35	1 (Philippines)	0.68
Total	85	100.00	147	100.00
HIGHEST EDUCATION DEGREE				
Bachelor Degree	5	5.88	90	61.22
Post Graduate Certificate	17	20.00	35	23.81
Master	35	41.18	19	12.93
Ph.D. or Equivalent	28	32.94	3	2.04
Total	85	100.00	147	100.00

4.1.2.3 HIGHEST EDUCATION DEGREE

Almost all (95%) of the Faculty staffs received the highest degree higher than bachelor degree. Many staffs obtained more than one degree, for example: finished post-graduated training in Thailand followed by Master degree and Ph.D. from abroad.

Approximately 40% of the dental practitioners obtained higher degree mostly Postgraduate Certificate from the Universities in Thailand. Table 4.4 presents the summary of the higher degrees obtained and the Countries where the Faculty staffs and the dental practitioners received the degrees.

4.1.3 WORKING STATUS OF THE FACULTY STAFFS

Table 4.5 summarizes working status of the Faculty staffs.

4.1.3.1 EXPERIENCES

In the Faculty staffs group, the number of years the staffs were appointed as Faculty staffs ranged from less than one year to 32 years with an average of 17.69 ± 9.16 years. About half (54.12%) was appointed immediately after their graduation while others experienced working somewhere else prior to becoming Faculty staffs. The average time from graduation to getting academic appointment of the Faculty staffs who experienced working somewhere else was 2.88 years.

4.1.3.2 ACADEMIC POSITION

The ratio of academic position among lecturers who participated in the study was: Lecturers: Assistant Professors: Associate Professors equaled to 34 (40%): 27 (31%): 24 (28%) . No Faculty staff with Professorship participated in this study.

4.1.3.3 ADMINISTRATION POSITION

About half of the Faculty staffs reported no experiences working in administrative positions at the Faculty level. However, some of them reported to be on the committee of various activities apart from their routine works. The other half reported as having experiences in Administration positions either prior to or at the time of this study. The administrative positions included Dean, Associate Deans, and Assistant Deans, Head of the Departments or Equivalent and The Faculty Board. None reported having administrative position at the University level, although some reported to be on the committee of some activities.

Table 4.4 : Summary of the higher degree obtained and the countries where the degree had been launched of the Faculty staffs and the dental practitioners

	Post Graduate		Master		Ph.D. or Equivalent	
	Faculty Staffs	Dental Practitioners	Faculty Staffs	Dental Practitioners	Faculty Staffs	Dental Practitioners
Thailand	31 (36.47)	34 (23.13)	10 (12.35)	14 (9.52)	8 (5.44)	2(1.36)
USA	9 (10.58)	2 (1.36)	27 (31.76)	4 (2.72)	6 (4.08)	1 (0.68)
Europe	3 (3.52)	-	7 (4.76)	-	4 (4.70)	-
Australia & New Zealand	-	-	10 (11.76)	-	2 (23.52)	-
Japan	-	-	-	-	5 (5.88)	-
None	42 (49.41)	111 (75.51)	31 (34.47)	129 (87.76)	60 (70.59)	144 (97.96)
Total	85 (100.00)	147 (100.00)	85 (100.00)	147 (100.00)	85 (100.00)	147 (100.00)

Table 4.5 : Working Status of The Faculty Staffs

Details	Frequency	Percentage
Years of teaching		
Less than 5 years	7	8.24
5-10 years	19	22.35
11-15 years	6	7.06
More than 15 years	53	62.35
Total	85	100.00
Past experiences prior to be positioned as Faculty staffs		
None	46	54.12
Internship	12	14.12
Others hospitals	11	12.94
Private clinics	8	9.41
Other Universities	5	5.88
Working abroad	3	3.53
Total	85	100.00
Academic Position		
Lecturer	34	40.00
Assistant Professor	27	31.76
Associate Professor	24	28.23
Total	85	100.00
Part-time Practice		
None	8	9.41
Under taken	77	90.59
- Restricted to their specialty	31	36.47
- General	46	54.12
Total	85	100.00
Administrative Position		
Past	34	40.0
Present	23	27

4.1.3.4 PART TIME PRACTICES

Most (90.5%) of the Faculty staffs took part time jobs. About 40% of the staffs that undertook part time job limited their practice to their specialty. The rest practiced general dental services.

4.1.4 WORKING STATUS OF THE DENTAL PRACTITIONERS

Table 4.6 summarizes working status of the dental practitioners.

4.1.4.1 EXPERIENCES

For the dental practitioners, 29.9% had been working for less than 5 years. The percentages of the dental practitioners who had been working for 5-10 years, 11-15 years and more than 15 years were 27.9, 17.7 and 24.5 per cent respectively.

4.1.4.2 PRESENT WORK

The majority of dental practitioners who participated in the study (75.5%) worked in government organizations and a quarter of them (24.5%) worked in private sector. More than half (55.8%) of the government officials did not practice in private clinics whereas 44.2% took part time jobs. The number and percentage of dental practitioners categorized according to their chief departments are presented in Table 4.6.

4.1.4.3 LOCATION OF PRACTICE

A third (32%) of the dental practitioners worked in Bangkok while 18% worked in the central part, 13% in the North, 12% in the South, 5% in the East, 4% in the West and 6% in the Northeast. The percentages of the dental practitioners who worked in the same geographic area of their previous residence were 61%.

Table 4.6 : Working Status of The Dental Practitioners

Details	Frequency	Percentage
Years of practice		
< 5	44	29.93
5-10	41	27.89
11-15	26	17.69
> 15	36	24.49
Total	147	100.00
Location of practice		
Bangkok	47	31.97
Central	26	17.69
North	19	12.93
South	18	12.24
East	8	5.44
West	6	4.08
North east	23	15.56
Total	147	100.00
Category of practice		
Government Agencies	109	74.15
- Ministry of Public Health	87	59.18
- Bangkok Metropolitan	11	7.48
- Military	4	2.72
- Others	7	4.76
Private	38	25.85
Total	147	100.00
Type of Dental Practice		
Specialty only	5	3.40
General	142	96.60
Total	147	100.00

4.1.4.4 WORKING CHARACTERISTICS

Only 3.40% of the dental practitioners limited their practice according to their specialty.

4.2 RESULT OF THE OPINIONS OF THE FACULTY STAFFS AND THE DENTAL PRACTITIONERS TOWARDS THE COMPETENCY STANDARDS FOR NEW DENTAL GRADUATES

The means \pm SD of the rating scales rated for 115 competency statements ranged from 2.61 ± 1.09 to 5.00 ± 0.00 by the Faculty staffs and 2.61 ± 1.10 to 4.93 ± 0.32 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in each major competency are presented in Table 4.8 to Table 4.23. The result of the opinions that were interpreted as mostly agreed: agreed: moderately agreed were 47(40.87%): 57(49.57%): 11 (9.56%) for the Faculty staffs and 47(40.87%): 63(54.78): 5(4.35) for the dental practitioners (see Table 4.7). None of the opinions were given as slightly agreed or least agreed.

The competency statements with the five highest mean rating for agreements from the Faculty staffs were: Item 13.5.2 (5.00), Items 14.15 (4.94), Items 13.5.1, 13.2 (4.93), Items 7.1, 8.1, 8.5 (4.89), and Item 6.3 (4.88).

The competency statements with the five highest mean rating for agreement from the dental practitioners were: Item 7.1 (4.93), Item 13.5.1 (4.90), Items 6.3 and 13.2 (4.88), Item 13.5.2 (4.87), and Item 13.3 (4.86).

In conclusion, the competency statements that were rated within the five highest ranked by both groups were Items 6.3, 7.1, 13.2, 13.5.1 and 13.5.2.

Table 4.7 : Frequency and Percentage of Competency Statements being rated as Mostly Agreed, Agreed and Moderately Agreed

Major Competencies	Total Items	Faculty Staffs			Dental Practitioners		
		Mostly Agreed	Agreed	Moderately Agreed	Mostly Agreed	Agreed	Moderately Agreed
Examination	9	3	6	-	3	5	1
Diagnosis	7	-	7	-	2	5	-
Tr. Plan	6	1	5	-	4	2	-
Prevention & Promotion	6	3	3	-	3	3	-
Emergency Tr.	7	1	6	-	1	6	-
Pain & Anxiety control	7	1	3	3	2	2	3
Surgical Therapy	10	4	6	-	6	4	-
Periodontal treatment	5	4	1	-	3	2	-
Endodontic Treatment	9	5	4	-	3	6	-
Occlusion	7	5	2	-	-	7	-
Orthodontic Therapy	5	-	2	3	-	5	-
Oral Mucosal Therapy	2	-	2	-	-	2	-
Restorative Therapy	11	7	-	4	7	3	1
Prosthodontics Therapy	17	13	3	1	12	5	-
Community Involvement	7	-	7	-	-	7	-
Total	115	47	57	11	47	63	5
Percentage (%)	100	40.87	49.57	9.56	40.87	54.78	4.35

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Table 4.8 : Mean ratings of opinions for Competency Statements;
ranked by Faculty staffs opinions in each major competency

Item	Competency Statements in brief	Faculty Staffs		Dental Practitioners	
		Mean \pm SD	Ranked	Mean \pm SD	Ranked
	<i>Examination of the patient</i>	4.33 \pm 0.51		4.25 \pm 0.48	
1.1	Identify chief complaint	4.66 \pm 0.55	1	4.70 \pm 0.50	1
1.8	Establish patients records	4.62 \pm 0.58	2	4.48 \pm 0.68	4
1.9	Initiate medical consultation	4.56 \pm 0.61	3	4.63 \pm 0.58	2
1.2	Obtain history	4.47 \pm 0.67	4	4.51 \pm 0.66	3
1.4	Perform radiographic examination	4.42 \pm 0.70	5	4.37 \pm 0.75	5
1.3	Perform intra and extraoral examination	4.36 \pm 0.71	6	4.22 \pm 0.77	7
1.6	Assess dental & skeletal relationships	4.25 \pm 0.72	7	4.30 \pm 0.73	6
1.7	Obtain diagnostic casts and mount in articulator	3.80 \pm 0.99	8	3.27 \pm 1.08	9
1.5	Perform and/or order special diagnostic tests	3.78 \pm 0.90	9	3.73 \pm 0.86	8
	<i>Diagnosis</i>	4.26 \pm 0.58		4.41 \pm 0.51	
2.7	Recognize emergency situations	4.40 \pm 0.71	1	4.50 \pm 0.65	2
2.5	Identify orofacial problems	4.35 \pm 0.68	2	4.49 \pm 0.65	3
2.6	Recognize etiologies and risk factors of oral diseases	4.34 \pm 0.68	3	4.44 \pm 0.71	4
2.1	Interpret all findings	4.32 \pm 0.69	4	4.53 \pm 0.58	1
2.4	Establish differential diagnosis	4.20 \pm 0.79	5	4.21 \pm 0.79	7
2.3	Recognize oral manifestations diseases	4.11 \pm 0.77	6	4.24 \pm 0.73	6
2.2	Recognize impact of systemic diseases on oral health and dental treatment	4.10 \pm 0.74	7	4.43 \pm 0.67	5

Table 4.8 : Mean ratings of opinions for Competency Statements; ranked by Faculty staffs opinions in each major competency

Item	Competency Statements In brief	Faculty Staffs		Dental Practitioners	
		Mean \pm SD	Ranked	Mean \pm SD	Ranked
	<i>Treatment plan</i>	4.39 \pm 0.54		4.45 \pm 0.49	
3.3	Discuss finding, diagnosis, treatment options with patient	4.61 \pm 0.58	1	4.50 \pm 0.66	3
3.5	Manage confliction of treatment plan	4.48 \pm 0.68	2	4.50 \pm 0.66	3
3.4	Explain & discuss patient's responsibilities	4.47 \pm 0.67	3	4.59 \pm 0.58	1
3.1	Develop individualized preventive plan	4.40 \pm 0.66	4	4.52 \pm 0.58	2
3.2	Develop comprehensive treatment plan	4.40 \pm 0.69	5	4.37 \pm 0.67	5
3.6	Modify treatment plans	3.99 \pm 0.82	6	4.24 \pm 0.76	6
	<i>Prevention & Promotion</i>	4.40 \pm 0.49		4.37 \pm 0.53	
4.2	Motivate patients to assume responsibility of oral health	4.69 \pm 0.54	1	4.65 \pm 0.54	2
4.1	Educate patients	4.65 \pm 0.55	2	4.66 \pm 0.54	1
4.3	Perform preventive care	4.56 \pm 0.61	3	4.62 \pm 0.60	3
4.6	Manage patients' recall	4.31 \pm 0.76	4	4.22 \pm 0.82	5
4.4	Provide dietary counseling	4.24 \pm 0.70	5	4.37 \pm 0.68	4
4.5	Monitor and Access patient compliance	3.96 \pm 0.78	6	3.71 \pm 0.99	6
	<i>Emergency Situations</i>	4.43 \pm 0.60		4.40 \pm 0.61	
5.7	Recognizes & refer cases beyond capability	4.71 \pm 0.55	1	4.66 \pm 0.57	1
5.1	Develop strategy for preventing and managing emergencies	4.45 \pm 0.75	2	4.33 \pm 0.81	6
5.3	Recognize and manage dental emergencies	4.41 \pm 0.73	3	4.48 \pm 0.69	2
5.2	Perform basic life support	4.40 \pm 0.74	4	4.41 \pm 0.77	3
5.5	Manage emergency related to pharmacological employed	4.39 \pm 0.76	5	4.38 \pm 0.76	4
5.4	Manage dental emergencies related to treatment complications	4.34 \pm 0.80	6	4.37 \pm 0.74	5
5.6	Explain and discuss use of pharmacological agents in life threatening	4.32 \pm 0.74	7	4.21 \pm 0.87	7

Table 4.8 : Mean ratings of opinions for Competency Statements;
ranked by Faculty staffs opinions in each major competency

Item	Competency Statements in brief	Faculty Staffs		Dental Practitioners	
		Mean \pm SD	Ranked	Mean \pm SD	Ranked
	<i>Control of pain and anxiety</i>	3.59 \pm 0.58		3.72 \pm 0.65	
6.3	Use local anesthesia technique	4.88 \pm 0.36	1	4.88 \pm 0.35	1
6.1	Prevent pain and anxiety	4.39 \pm 0.66	2	4.54 \pm 0.60	2
6.2	Select & prescribe drugs for pain & anxiety	4.18 \pm 0.82	3	4.23 \pm 0.79	3
6.5	Explain & discuss use of non-pharmacological modalities	3.66 \pm 0.93	4	3.88 \pm 0.95	4
6.6	Explain & discuss use of intravenous sedation	2.78 \pm 0.96	5	2.90 \pm 1.18	6
6.7	Explain & discuss use of general anesthesia	2.66 \pm 1.01	6	2.97 \pm 1.28	5
6.4	Use inhalation sedation techniques	2.61 \pm 1.09	7	2.61 \pm 1.10	7
	<i>Surgical Therapy</i>	4.49 \pm 0.45		4.44 \pm 0.47	
7.1	Extract uncomplicated tooth	4.89 \pm 0.33	1	4.93 \pm 0.32	1
7.3	Remove uncomplicated fractured or residual root tips	4.78 \pm 0.44	2	4.82 \pm 0.46	2
7.7	Treat uncomplicated odontogenic infection	4.56 \pm 0.53	3	4.67 \pm 0.58	5
7.8	Manage common postoperative surgical complications	4.56 \pm 0.73	4	4.52 \pm 0.72	6
7.2	Surgical extraction of an erupted tooth	4.44 \pm 0.53	5	4.71 \pm 0.55	4
7.4	Surgical remove uncomplicated impaction	4.44 \pm 0.73	6	4.73 \pm 0.51	3
7.5	Perform uncomplicated preprosthetic surgery	4.38 \pm 0.52	7	4.47 \pm 0.79	7
7.10	Explain & discuss complicated surgery	4.33 \pm 0.50	8	3.65 \pm 0.94	9
7.6	Perform uncomplicated soft tissue biopsy	4.33 \pm 0.71	9	4.31 \pm 0.85	8
7.9	Explain & discuss surgical placement of osseo-integrated dental implants	4.00 \pm 0.87	10	3.60 \pm 0.99	10

Table 4.8 : Mean ratings of opinions for Competency Statements; ranked by Faculty staffs opinions in each major competency

Item	Competency Statements in brief	Faculty Staffs		Dental Practitioners	
		Mean \pm SD	Ranked	Mean \pm SD	Ranked
	<i>Periodontal Therapy</i>	4.73 \pm 0.40		4.53 \pm 0.53	
8.1	Detect sub gingival calculus	4.89 \pm 0.33	1	4.82 \pm 0.46	2
8.5	Refer difficult cases to specialists	4.89 \pm 0.33	1	4.53 \pm 0.67	3
8.2	Perform scaling and root planing	4.78 \pm 0.44	3	4.83 \pm 0.41	1
8.3	Evaluate treatment results and monitor maintenance program	4.78 \pm 0.44	3	4.39 \pm 0.74	4
8.4	Explain & discuss surgical procedures	4.33 \pm 0.71	5	4.05 \pm 0.77	5
	<i>Endodontic Therapy</i>	4.43 \pm 0.46		4.40 \pm 0.57	
9.1	Manage pathologic pulp & periradicular tissues	4.73 \pm 0.46	1	4.73 \pm 0.58	1
9.2	Perform vital pulp therapy	4.73 \pm 0.46	1	4.69 \pm 0.58	2
9.6	Follow up success & failure	4.73 \pm 0.46	1	4.39 \pm 0.78	5
9.5	Perform non-vital bleaching	4.53 \pm 0.64	4	4.08 \pm 0.91	9
9.7	Manage traumatic injuries	4.53 \pm 0.74	5	4.53 \pm 0.67	3
9.8	Explain & discuss apexogenesis and apexification	4.33 \pm 0.82	6	4.38 \pm 0.74	6
9.4	Perform uncomplicated root canal retreatment	4.27 \pm 0.70	7	4.25 \pm 0.96	7
9.3	Perform non-surgical root canal treatment	4.07 \pm 0.88	8	4.48 \pm 0.76	4
9.9	Explain & discuss surgical endodontics	3.93 \pm 0.88	9	4.11 \pm 0.81	8

Table 4.8 : Mean ratings of opinions for Competency Statements; ranked by Faculty staffs opinions in each major competency

Item	Competency Statements in brief	Faculty Staffs		Dental Practitioners	
		Mean \pm SD	Ranked	Mean \pm SD	Ranked
	<i>Occlusal Therapy</i>	4.62 \pm 0.42		3.91 \pm 0.77	
10.1	Analyze existing occlusal relationships	4.83 \pm 0.41	1	4.12 \pm 0.80	1
10.3	Manage occlusal dysfunction using conventional methods	4.83 \pm 0.41	1	4.07 \pm 0.86	2
10.2	Diagnose occlusal dysfunction	4.83 \pm 0.41	1	4.03 \pm 0.87	3
10.5	Provide restorative treatment to establish & maintain occlusal harmony	4.83 \pm 0.41	1	3.89 \pm 0.91	5
10.4	Fabricate occlusal bite plane splint	4.83 \pm 0.41	1	3.84 \pm 0.93	6
10.6	Explain rationale of occlusal adjustment	4.33 \pm 0.82	6	3.90 \pm 0.98	4
10.7	Explain rationale of surgical therapy to treat TMJ and facial pain disorders	3.83 \pm 0.98	7	3.58 \pm 0.99	7
	<i>Orthodontic Therapy</i>	3.27 \pm 0.69		3.97 \pm 0.81	
11.1	Recognize normal growth & development of cranio facial complex and occlusion	3.50 \pm 0.76	1	4.21 \pm 0.83	1
11.3	Design, insert, adjust space maintainers	3.50 \pm 1.07	2	4.17 \pm 0.89	2
11.2	Recognize interferences and take action	3.38 \pm 0.74	3	4.15 \pm 0.85	3
11.4	Design, insert, adjust active appliance to move single tooth or segment	3.38 \pm 0.92	4	3.71 \pm 1.09	4
11.5	Explain and discuss full arch treatment	2.63 \pm 1.19	5	3.61 \pm 1.16	5
	<i>Oral Mucosal Therapy</i>	3.94 \pm 0.98		4.10 \pm 0.79	
12.1	Counsel and manage patients with oral mucosal diseases	4.13 \pm 0.83	1	4.24 \pm 0.73	1
12.2	Recognize and manage need of soft tissue surgery	3.75 \pm 1.16	2	3.96 \pm 0.96	2

Table 4.8 : Mean ratings of opinions for Competency Statements;
ranked by Faculty staffs opinions in each major competency

Item	Competency Statements In brief	Faculty Staffs		Dental Practitioners	
		Mean \pm SD	Ranked	Mean \pm SD	Ranked
	<i>Restorative Therapy</i>	4.28 \pm 0.43		4.44 \pm 0.44	
13.5.2	Restore uncomplicated with composite resin	5.00 \pm 0.00	1	4.87 \pm 0.39	3
13.5.1	Restore uncomplicated teeth with amalgam	4.93 \pm 0.26	2	4.90 \pm 0.34	1
13.2	Remove carious tooth structure	4.93 \pm 0.26	2	4.88 \pm 0.36	2
13.4	Select and manipulate restorative materials	4.87 \pm 0.35	4	4.81 \pm 0.43	5
13.5.3	Restore uncomplicated with glass ionomer	4.87 \pm 0.35	4	4.73 \pm 0.60	6
13.1	Isolate teeth from contamination	4.87 \pm 0.35	4	4.71 \pm 0.55	7
13.3	Create biomechanical sound tooth preparation	4.80 \pm 0.56	7	4.86 \pm 0.42	4
13.6	Explain & discuss restorations for cosmetic dental treatment	3.47 \pm 1.13	8	4.22 \pm 0.79	8
13.7	Explain & discuss vital bleaching	3.47 \pm 1.13	8	4.03 \pm 0.88	9
13.5.4	Restore uncomplicated with cast gold alloy	3.00 \pm 1.07	10	3.24 \pm 1.14	11
13.5.5	Restore uncomplicated with composite veneer	2.93 \pm 1.22	11	3.55 \pm 1.14	10

Table 4.8 : Mean ratings of opinions for Competency Statements;
ranked by Faculty staffs opinions in each major competency

Item	Competency Statements in brief	Faculty Staffs		Dental Practitioners	
		Mean \pm SD	Ranked	Mean \pm SD	Ranked
	<i>Prosthodontic Therapy</i>	4.51 \pm 0.39		4.44 \pm 0.51	
14.15	Educate patient on maintenance of prostheses	4.94 \pm 0.24	1	4.79 \pm 0.47	1
14.6	Fabricate sound provisional prostheses	4.83 \pm 0.38	2	4.65 \pm 0.57	4
14.5	Make accurate impressions	4.78 \pm 0.43	3	4.75 \pm 0.52	2
14.12	Select and manipulate appropriate luting medium	4.78 \pm 0.43	3	4.61 \pm 0.63	8
14.4	Create biomechanical sound tooth preparations	4.78 \pm 0.43	3	4.60 \pm 0.60	9
14.1	Establish treatment plan for prosthodontics patients	4.78 \pm 0.43	3	4.59 \pm 0.66	6
14.2	Evaluate and select abutment teeth	4.72 \pm 0.46	7	4.61 \pm 0.65	7
14.14	Reline and repair removable prostheses	4.72 \pm 0.46	7	4.46 \pm 0.71	13
14.13	Provide prostheses that are in good form-function and esthetics	4.67 \pm 0.49	9	4.51 \pm 0.70	11
14.3	Identify and manage conditions that preclude satisfactory prostheses	4.67 \pm 0.49	9	4.50 \pm 0.66	12
14.10	Select and arrange artificial teeth	4.61 \pm 0.50	11	4.40 \pm 0.82	14
14.9	Direct laboratory fabrication of prostheses	4.56 \pm 0.62	12	4.62 \pm 0.58	5
14.8	Select appropriate shade for prostheses	4.50 \pm 0.71	13	4.67 \pm 0.56	3
14.11	Evaluate and modify prostheses	4.44 \pm 0.51	14	4.56 \pm 0.61	10
14.7	Obtain working casts	4.28 \pm 0.83	15	3.93 \pm 0.91	15
14.16	Explain & discuss endosseous implants	3.50 \pm 0.99	16	3.56 \pm 1.05	17
14.17	Explain & discuss oral rehabilitation	3.17 \pm 1.10	17	3.59 \pm 1.01	16

Table 4.8 : Mean ratings of opinions for Competency Statements; ranked by Faculty staffs opinions in each major competency

Item	Competency Statements in brief	Faculty Staffs		Dental Practitioners	
		Mean \pm SD	Ranked	Mean \pm SD	Ranked
	<i>Community Involvement</i>	3.78 \pm 0.38		4.20 \pm 0.74	
15.1	Explain & discuss role of dental profession	4.25 \pm 0.50	1	4.48 \pm 0.75	2
15.2	Explain & discuss current dental care system	4.00 \pm 0.00	2	4.48 \pm 0.72	1
15.3	Explain & discuss current epidemiological trends of oral diseases	3.75 \pm 0.50	3	4.28 \pm 0.83	3
15.5	Explain & discuss effectiveness of community based programs	3.75 \pm 0.50	3	4.10 \pm 0.87	5
15.4	Explain & discuss research methodologies related to oral health	3.75 \pm 0.50	3	3.95 \pm 0.93	7
15.7	Understand the need and select appropriate dental care	3.50 \pm 0.58	6	4.13 \pm 0.93	4
15.6	Explain & discuss current trends in the provision and financing of health care	3.50 \pm 0.58	6	3.96 \pm 0.94	6

The competency statements with the five lowest mean rating for agreement from the Faculty staffs were: Item 6.4 (2.61), Item 11.5 (2.63), Item 6.7 (2.66), Item 6.6 (2.78), and Item 15.5.5 (2.93).

The competency statements with the five lowest mean rating for agreement from the dental practitioners were: Item 6.4 (2.61), Item 6.6 (2.90), Item 6.7 (2.97), Item 13.5.4 (2.93) and Item 1.7 (3.27).

In conclusion, the competency statements that were rated within the five lowest ranked by both groups were Items 6.4, 6.6 and 6.7, which were the statements considering the ability to control pain and anxiety.

For the open-ended opinions, 40 (47.06%) of the Faculty staffs provided further comments compared to 72 (48.98%) of the dental practitioners

4.2.1 EXAMINATION OF THE PATIENTS

For the first domain, "Assessment of the patients and the oral environment", three major competencies are included. The first major competency deals with the examination of the patient and has a list of 9 competency statements.

4.2.1.1 RESULT OF THE RATING SCALE

The means \pm SD of the rating scales rated for 9 competency statements ranged from 3.78 ± 0.90 to 4.66 ± 0.55 by the Faculty staffs and 3.27 ± 1.08 to 4.70 ± 0.50 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according to the ranked order of the rating scales. Table 4.9 presents the frequencies means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed: moderately agreed were 3:6:0 statements from the Faculty staffs and 3:5:1 statements from the general practitioners.

Table 4.9 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Examination of the patient

Competency statements in brief	Faculty staffs										Dental Practitioners					
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
1.1 Identify chief complaint	85	59 (69.4%)	23 (27.1%)	3 (3.5%)	-	-	4.66	0.55	147	106 (72.1%)	38 (25.9%)	3 (2.0%)	-	-	4.70	0.50
1.2 Obtain history	85	48 (56.5%)	29 (34.1%)	8 (9.4%)	-	-	4.47	0.67	147	88 (59.9%)	46 (31.3%)	13 (8.8%)	-	-	4.51	0.66
1.3 Perform intra-and extraoral examination	83	41 (49.4%)	31 (37.3%)	11 (13.3%)	-	-	4.36	0.71	147	60 (40.8%)	62 (42.2%)	22 (15.0%)	3 (2.0%)	-	4.22	0.77
1.4 Perform radiographic examination	83	45 (54.2%)	28 (33.7%)	10 (12%)	-	-	4.42	0.70	147	76 (51.7%)	53 (36.1%)	15 (10.2%)	3 (2.0%)	-	4.37	0.75
1.5 Perform and/or order special diagnostic tests	85	19 (22.4%)	36 (42.4%)	22 (25.9%)	8 (9.4%)	-	3.78	0.90	146	27 (18.5%)	65 (44.5%)	42 (28.8%)	12 (8.2%)	-	3.73	0.86
1.6 Assess dental and skeletal relationships	85	34 (40.0%)	39 (45.9%)	11 (12.9%)	1 (1.2%)	-	4.25	0.72	147	65 (44.2%)	63 (42.9%)	17 (11.6%)	2 (1.4%)	-	4.30	0.73
1.7 Obtain diagnostic casts and mount in articulator	85	24 (28.2%)	29 (34.1%)	24 (28.2%)	7 (8.2%)	1 (1.2%)	3.80	0.99	147	25 (17.0%)	29 (19.7%)	60 (40.8%)	27 (18.4%)	6 (4.1%)	3.27	1.08
1.8 Establish patient records	85	57 (67.1%)	24 (28.2%)	4 (4.7%)	-	-	4.62	0.58	147	86 (58.5%)	46 (31.3%)	15 (10.2%)	-	-	4.48	0.68
1.9 Initiate medical consultation	85	53 (62.4%)	27 (31.8%)	5 (5.9%)	-	-	4.56	0.61	147	99 (67.3%)	41 (27.9%)	7 (4.8%)	-	-	4.63	0.58

Item 1.1 and Item 1.9 were the competency statements that were rated as mostly agreed, by both Faculty staffs and general practitioners.

Item 1.5 and Item 1.7 were the competency statements that were rated as the two lowest scores by both Faculty staffs and general practitioners.

For the faculty staffs,

- Item 1.1 was rated the highest mean (4.66)
- Item 1.5 was rated the lowest mean (3.78)
- Item 1.1 was rated with the smallest standard deviation (0.55)
- Item 1.7 was rated with the largest standard deviation (0.99).

For the dental practitioners,

- Item 1.1 was rated the highest mean (4.70)
- Item 1.7 was rated the lowest mean (3.27)
- Item 1.1 was rated with the smallest standard deviation (0.50)
- Item 1.7 was rated with the largest standard deviation (1.08).

There were relative agreement in opinions between the faculty staff and the general practitioner. None of the item had mean difference more than 1.00. The largest mean difference of 0.53 was from Item 1.7.

4.2.1.2 RESULT FROM THE OPEN-ENDED PART

Item 1.1: identify the chief complaint or the reason for the patients' visit including their needs and expectations.

One faculty staff remarked that "new generation" dentists did not perform well in this competency. Others suggested that this competency might depend on advisors, cases difficulties (complexity of cases), and that student seminars might enhance learning. Furthermore, new dental graduates might need more experiences to meet this competency in complicated cases.

A dental practitioner considered that this competency was the most important step in case management. Others pointed out that this competency should be achieved in order to be able to give appropriate treatment to the patient. It would lead to correct management that was relevant to patients' needs.

Item 1.2: Obtain a medical, psycho-social and dental history.

Even though this competency got relatively high score of approval, additional opinions from faculty staffs revealed shared concern on the evaluation of the socioeconomic and psychological status of the patients. Evaluation of the socioeconomic and psychological status of the patients was considered less important than other aspects (dental and medical). It might be difficult for newly graduated dentists to do well and completely because it was highly complex and needed much information.

Dental practitioners were limited by time, experiences and the socioeconomic aspects might not be satisfactorily obtained. However, they stressed the importance of this competency. Their comments were that it helped build smooth dentist-patient relationship and prevented adverse events from dental management.

Item 1.3: Perform a complete head and neck and intraoral examination appropriate for the patient.

Faculty staffs maintained that dental graduates should be able to do detailed intraoral examination while the examination of the head and neck might not be as detailed.

Dental practitioners viewed this competency in a more negative light than faculty staffs did. They believed that they could not examine head and neck regions adequately or well enough. They did not examine head and neck routinely and even suggested to have medical specialists do it instead.

Item 1.4: Perform appropriate radiographic examination for the patient.

Both faculty staffs and dental practitioners agreed that dentists should understand the radiological principles and techniques well enough to order, to evaluate the quality of, to interpret, and to train dental assistants or technicians to take radiographs for them. In practice, technicians or dental assistants usually took radiographs for dentists and only the periapical film was singled out as an obligatory radiographic competence.

Item 1.5: Perform special diagnostic tests and/or order appropriate clinical laboratory, and understand their diagnostic reliability and validity.

Faculty staffs and dental practitioners gave overlapping opinions. They agreed that special diagnostic tests or laboratory tests might be necessary in certain circumstances. They suggested that dentists should let specialists decide further investigations. Reasons supporting the agreement, however, differ between faculty staffs and dental practitioners. Faculty staffs believed that newly graduated dentists did not have enough expertise to investigate further and needed postgraduate study to enable them to do that. Dental practitioners gave various reasons including dentists' lack of knowledge and capabilities to investigate, severely limited laboratory resources at community hospital level, and uncertainties over the quality of laboratory instruments.

Item 1.6: Assess dental and skeletal relationships in the primary, mixed and permanent dentition in order to identify conditions, which require treatment and management

Faculty staffs suggested this competency for cases that need orthodontic management, when indications exist, and to evaluate occlusions before and after treatment.

Dental practitioners concurred with faculty staffs in that they might be able to do preliminary assessment and then referred cases if appropriate.

Item 1.7: Obtain diagnostic casts and mount them on a semi-adjustable articulator using a face-bow transfer, and inter-occlusal records.

Both faculty staffs and dental practitioners agreed that dental graduates should achieve this competency although it might not be used in all cases. One faculty staff believed that this competency should be taught at the postgraduate level.

Dental practitioners added that dental graduates rarely had the opportunities to perform this procedure because of lack of instruments and financial support. One dental practitioner questioned if there were more practical alternatives.

Item 1.8: Establish systematically and maintain accurately patient records.

One faculty staff believed that dental record system could be well implemented, especially in government hospitals. Another staff suggested different dental record systems be taught instead of only one currently used (in drafted format).

Dental practitioners realized the necessity and importance of having a well-functioning dental record and dental information system. The benefit of computerized information system was expected. Some dental practitioners considered patient records as legal documents that could be used to protect themselves.

Item 1.9: Initiate an appropriately written medical consultation to clarify questions related to patient's systemic health and dental treatment.

Two faculty staffs thought that dental students could not write appropriate consultation requests and should be taught writing skills. One staff believed consultation requests be made only for systemic abnormalities.

Dental practitioners realized the necessity to communicate with other health care team members (e.g. physicians, etc.) through consultation system for the best benefit of patients. Newly graduated dentists often faced problems during their first few years of practice. They suggested dental graduates be able to evaluate systemic problems, to write consultation requests and notes using correct technical terms and this competency should be practiced or taught in real-life hospitals.

4.2.2 DIAGNOSIS

The second major competency in this domain deals with the diagnosis. It consists of 7 competency statements.

4.2.2.1 RESULT OF THE RATING SCALE

Overall, both groups gave high rates for this major competency. None of the 7 competency statements got average score lower than 4.10.

The means \pm SD of the rating scales rated for 7 competency statements ranged from 4.10 ± 0.74 to 4.40 ± 0.71 by the Faculty staffs and 4.21 ± 0.79 to 4.53 ± 0.58 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according to the ranked order of the rating scales. Table 4.10 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed were 0:7 statements from the Faculty staffs and 2:5 statements from the dental practitioners.

Item 2.1, Item 2.5, Item 2.6 and Item 2.7 were the competency statements that were rated in the upper ranked by both Faculty staffs and dental practitioners.

For the faculty staffs,

- Item 2.7 was rated with the highest mean (4.40)
- Item 2.2 was rated with the lowest mean (4.10)
- Item 2.5 and 2.6 were rated with the smallest standard deviation (0.68)
- Item 2.4 was rated with the largest standard deviation (0.79)

Table 4.10 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Diagnosis

Competency statements in brief	Faculty staffs										Dental Practitioners					
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
2.1 Interpret all findings	85	38 (44.7%)	36 (42.4%)	11 (12.9%)	-	-	4.32	0.69	147	83 (56.5%)	60 (40.8%)	3 (2.0%)	1 (0.7%)	-	4.53	0.58
2.2 Recognize impact of systemic diseases on oral health and dental treatment	84	26 (31.0%)	41 (48.8%)	16 (19.0%)	1 (1.2%)	-	4.10	0.74	147	76 (51.7%)	60 (40.8%)	9 (6.1%)	2 (1.4%)	-	4.43	0.67
2.3 Recognize oral manifestations of some systemic disease	85	28 (32.9%)	40 (47.1%)	15 (17.6%)	2 (2.4%)	-	4.11	0.77	147	60 (40.8%)	64 (43.5%)	22 (15.0%)	1 (0.7%)	-	4.24	0.73
2.4 Establish differential diagnosis	84	34 (40.5%)	35 (41.7%)	13 (15.5%)	2 (2.4%)	-	4.20	0.79	147	61 (41.5%)	59 (40.1%)	24 (16.3%)	3 (2.0%)	-	4.21	0.79
2.5 Identify orofacial problems	85	39 (45.9%)	38 (44.7%)	7 (8.2%)	1 (1.2%)	-	4.35	0.68	146	83 (56.8%)	53 (36.3%)	9 (6.2%)	1 (0.7%)	-	4.49	0.65
2.6 Recognize etiologies and risk factors of oral Diseases	85	39 (45.9%)	36 (42.4%)	10 (11.8%)	-	-	4.34	0.68	147	82 (55.8%)	50 (34.0%)	13 (8.8%)	2 (1.4%)	-	4.44	0.71
2.7 Recognize emergency situations	85	45 (52.9%)	29 (34.1%)	11 (12.9%)	-	-	4.40	0.71	147	85 (57.8%)	50 (34.0%)	12 (8.2%)	-	-	4.50	0.65

For the dental practitioners,

- Item 2.1 was rated with the highest mean (4.53)
- Item 2.4 was rated with the lowest mean (4.21)
- Item 2.1. was rated with the smallest standard deviation (0.58)
- Item 2.4 was rated with the largest standard deviation (0.79).

There were relative opinion agreement between the faculty staff and the general practitioner. The largest difference of mean was only 0.33 from item 2.2.

4.2.2.2 RESULTS FROM THE OPEN-ENDED PART

Item 2.1: Interpret all of the findings

Faculty staffs and dental practitioners agreed that to interpret clinical findings well needs experiences. In complicated cases and for special investigations, dental graduates might refer cases to specialists.

Item 2.2: Recognize and understand the pathologic physiology of systemic disease and its influence upon oral health and treatment.

Faculty staffs and dental practitioners concurred that dental graduates might be able to review and understand common systemic diseases, e.g., hypertension, diabetes mellitus, etc. As a member of health care team, dentists would work and consult with physicians and gained experiences from practice.

Item 2.3: Recognize the oral manifestations of some systemic diseases

Faculty staffs and dental practitioners agreed that dental graduates should recognize pathological lesions in oral cavity, especially those in common diseases. One faculty staff worried about students not having enough experiences due to little exposures to patients' lesions.

Item 2.4: Establish a differential diagnosis and be able to come to a final diagnosis

Dental practitioners generally agreed with faculty staffs that dental graduates should be able to differentially diagnose and give final diagnosis of common oral lesions. Rare lesions might need further investigations.

Item 2.5: Identify orofacial problems and conditions, which require treatment, management or referral

One faculty staff noted that this should be done meticulously and consciously. One dental practitioner stated that even though one might not be able to identify the problem definitely, she or he should be worry and referred the case.

Item 2.6: Recognize etiologies and risk factors of oral diseases in order to conduct preventive strategies.

Faculty staffs considered this competency essential as the basis for follow-up in the strategic plans. Another opinion stated that the necessity to obtain this competency depended on the prevalence of the diseases.

Item 2.7: Recognize impending or potential emergency situations in order to identify conditions, which require preventive strategies

One faculty staff felt that direct experience will emphasize the importance. Another felt that new dental graduates might not be fully aware of the potential situation.

One dental practitioner stressed the importance of this competency, especially for those who worked in the community hospital where insufficient number of health personnel and equipments existed. One stated that it might

not be clearly recognized but the dentist should be aware of and should have a preventive scheme. Another dental practitioner would like to have the opportunity to make ward round with physicians and dental educators to learn more about patients with systemic diseases.

4.2.3 TREATMENT PLANNING

The last major competency in this domain is about treatment planning which has 6 competency statements.

4.2.3.1 RESULT OF THE RATING SCALE

Overall, both groups gave even higher rates for this major competency than the competency statements for diagnosis. Apart from Item 3.6, for which the average score given by the Faculty staffs was 3.99. None of the 6 competency statements got the average score lower than 4.24.

The means \pm SD of the rating scales rated for 6 competency statements ranged from 3.99 ± 0.82 to 4.61 ± 0.58 by the Faculty staffs and 4.24 ± 0.76 to 4.59 ± 0.58 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according the ranked order of the rating scales. Table 4.11 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed were 1:5 statements from the Faculty staffs and 4:2 statements from the dental practitioners.

Both groups rated Item 3.3 as mostly agreed while rated Item 3.6 as the last ranked order.

For the faculty staffs,

- Item 3.3 was rated with the highest mean (4.61)
- Item 3.6 was rated with the lowest mean (3.99)
- Item 3.3 was rated with the smallest standard deviation (0.58)
- Item 3.6 was rated with the largest standard deviation (0.82).

For the dental practitioners,

- Item 3.4 was rated with the highest mean (4.59)
- Item 3.6 was rated with the lowest mean (4.24)
- Item 3.1 and 3.4 were rated with the smallest standard deviation (0.58)
- Item 3.6 was rated with the largest standard deviation (0.76).

There were relative opinion agreement between the faculty staff and the dental practitioner. None of the items had mean difference more than 0.50. The largest difference of mean was 0.25 in Item 3.6.

Table 4.11 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Treatment planning

Competency statements in brief	Faculty staffs						Dental Practitioners									
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
3.1 Develop individualized preventive plan	85	42 (49.4%)	35 (41.2%)	8 (9.4%)	-	-	4.40	0.66	147	83 (56.5%)	58 (39.5%)	6 (4.1%)	-	-	4.52	0.58
3.2 Develop comprehensive treatment plan	85	44 (51.8%)	31 (36.5%)	10 (11.8%)	-	-	4.40	0.69	147	71 (48.3%)	60 (40.8%)	16 (10.9%)	-	-	4.37	0.67
3.3 Discuss findings, diagnosis, treatment options with patient	85	56 (65.9%)	25 (29.4%)	4 (4.7%)	-	-	4.61	0.58	147	85 (57.8%)	51 (34.7%)	10 (6.8%)	1 (0.7%)	-	4.50	0.66
3.4 Explain & discuss patient's responsibilities	85	47 (55.3%)	32 (37.6%)	5 (5.9%)	1 (1.2%)	-	4.47	0.67	147	93 (63.3%)	47 (32.0%)	7 (4.8%)	-	-	4.59	0.58
3.5 Manage confliction of treatment plan	85	49 (57.6%)	29 (34.1%)	6 (7.1%)	1 (1.2%)	-	4.48	0.68	147	85 (57.8%)	53 (36.1%)	7 (4.8%)	2 (1.4%)	-	4.50	0.66
3.6 Modify treatment plans	85	24 (28.2%)	40 (47.1%)	17 (20.0%)	4 (4.7%)	-	3.99	0.82	147	62 (42.2%)	62 (42.2%)	20 (13.6%)	3 (2.0%)	-	4.24	0.76

4.2.3.2 OPINIONS FROM THE OPEN-ENDED PART

Item 3.1: Develop an individualized preventive plan for the patient

Faculty staffs considered evaluation, planning, and follow-up important but it probably needed at least 5 years of experience to perform well. Moreover, knowledge in the field of preventive dentistry was essential.

One opinion given by dental practitioner was that it was quite difficult to determine an individualized preventive plan because of many factors involved.

Item 3.2: Develop a comprehensive and systematically treatment plan based on all diagnostic data

Faculty staffs and dental practitioners felt that new dental graduates might need more experiences in order to develop full competence in this competency. Some faculty staffs stressed that the word systematically should mean properly sequenced.

Some dental practitioner mentioned that establishing comprehensive treatment plan needed time and it was difficult to do in real practice because of high patient load. Moreover, the socioeconomic and education of patients were obstacles in developing such plans.

Item 3.3: Discuss the findings, diagnosis, and treatment options with the patient, parent or guardian and obtain informed consent

One faculty staff mentioned that in real practice dentists might ignore this but it was necessary in order to prevent prosecution.

Dental practitioners gave wide ranging opinions; varying from not really necessary to very important. Some preferred to have a standard form for all dentists so that the same rationale was used. All agreed that dentists must

explain patients. Some recommended that dentists should explain advantages and disadvantages of each treatment option to the patient.

Item 3.4: Explain and discuss the patient's responsibilities, time requirements, sequence of treatments, estimated fees and payment responsibilities.

One faculty staff felt that this should be done as an agreement between both sides and should better be recorded in order to prevent problems. Another said explanation should also be made when referral was needed.

Dental practitioners also stressed the importance. Some stated that in the past, dentist used to be the one who made decision for patients. Nowadays it was the rights of the patients to know the information and made decision by themselves. The problem of time constraint due to high patient load was also mentioned.

Item 3.5: Give reasons or recommendation in order to manage situations, where patient wishes and dentist's recommendations are in conflict

A faculty staff agreed that it is appropriate to do so but new dental graduates might need more experiences to fully develop this competency.

Dental practitioner also agreed and added that it was the responsibility of the dentist to do so and the reasons given should be based on scientific principles.

Item 3.6: Modify treatment plans when indicated due to unexpected circumstances, on non-compliant individuals, or for patients who need special care such as frail elderly or medically, mentally, and functionally compromised persons

Most faculty staffs and dental practitioners mentioned that more experiences should be gained, probably after graduation and had worked for at least a few years in order to fully develop this competency. However, necessity to modify treatment plan occurred frequently and sometimes needed experts' help.

4.2.4 PREVENTION OF DISEASE AND MAINTENANCE OF HEALTH

Domain 2: Establishment and maintenance of a healthy environment comprises 9 major competencies. The first competency concerns with the prevention of disease and maintenance of health with 6 competency statements presented for discussion.

4.2.4.1 RESULT OF THE RATING SCALE

The means \pm SD of the rating scales rated for the 6 competency statements ranged from 3.96 ± 0.78 to 4.69 ± 0.54 by the Faculty staffs and 3.71 ± 0.99 to 4.66 ± 0.54 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according to the ranked order of the rating scales. Table 4.12 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to the chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed were 3:3 statements from both Faculty staffs and dental practitioners.

The competency statements that were rated as mostly agreed, by both Faculty staffs and dental practitioners included Item 4.1, Item 4.2, and Item 4.3.

For the faculty staffs,

- Item 4.2 was rated with the highest mean (4.69) and the smallest standard deviation (0.54)
- Item 4.5 was rated with the lowest mean (3.96) and the largest standard deviation (0.78).

For the dental practitioners,

- Item 4.1 was rated with the highest mean (4.66) and the smallest standard deviation (0.54)
- Item 4.5 was rated with the lowest mean (3.71) and the largest standard deviation (0.99).

There were relative opinion agreement between the faculty staffs and the general practitioners. None of the items had mean difference more than 0.50. The largest difference of mean was 0.25 in Item 4.5.

4.2.4.2 RESULT FROM THE OPEN-ENDED PART

Item 4.1: Educate patients and care givers concerning the etiology and prevention of oral diseases.

Some faculty staffs felt that only diseases with high prevalence should be concerned. One faculty staff thought knowledge given to undergraduates was enough to obtain this competency.

One dental practitioner stated that chair-side education was essential and dentists should regularly practice this.

Table 4.12 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Prevention of disease and maintenance of health

Competency statements in brief	Faculty staffs						Dental Practitioners									
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
4.1 Educate patients	85	58 (68.2%)	24 (28.2%)	3 (3.5%)	-	-	4.65	0.55	147	102 (69.4%)	40 (27.2%)	5 (3.4%)	-	-	4.66	0.54
4.2 Motivate patients to assume responsibility of their oral health	83	60 (72.3%)	20 (24.1%)	3 (3.6%)	-	-	4.69	0.54	147	101 (68.7%)	41 (27.9%)	5 (3.4%)	-	-	4.65	0.54
4.3 Perform preventive care	85	53 (62.4%)	27 (31.8%)	5 (5.9%)	-	-	4.56	0.61	147	100 (68.0%)	38 (25.9%)	9 (6.1%)	-	-	4.62	0.60
4.4 Provide dietary counseling	85	33 (38.8%)	39 (45.9%)	13 (15.3%)	-	-	4.24	0.70	147	71 (48.3%)	59 (40.1%)	17 (11.6%)	-	-	4.37	0.68
4.5 Monitor and Access patient compliance	84	22 (26.2%)	39 (46.4%)	21 (25.0%)	2 (2.4%)	-	3.96	0.78	147	37 (25.2%)	47 (32.0%)	48 (32.7%)	13 (8.8%)	2 (1.4%)	3.71	0.99
4.6 Manage patient's recall	84	41 (48.81%)	28 (33.3%)	15 (17.6%)	-	-	4.31	0.76	147	64 (43.5%)	56 (38.1%)	22 (15.0%)	5 (3.4%)	-	4.22	0.82

Item 4.2: Motivate and encourage patients to assume appropriate responsibility for their oral health including control adverse oral habits

Both faculty staffs and dental practitioners agreed with this competency but one stressed the importance of motivation at the community level rather than at individual level.

Item 4.3: Perform prophylaxis, topical and supplemental fluorides, sealants, and other preventive care.

Faculty staffs and dental practitioners mentioned that not all patients needed this. Pediatric populations were typically targeted. Assessments of the severity and proper diagnosis were key factors for success.

Item 4.4: Provide dietary counseling and nutritional education relevant to oral health.

Faculty staff considered that new dental graduates should be able to give general advises but might not have the diet analysis ability.

Dental practitioners also concerned about the competency to provide counseling on tobacco avoidance.

Item 4.5: Monitor and assess patient compliance in the prevention of dental disease including the recording of appropriate indices

One faculty staff complained that he could not understand the statement. Other stated that valid analysis of the compliance of the patient from the index make prevention scheme successful.

Dental practitioners gave various opinions. The first opinion was about the possibility to monitor and record the preventive plan and indices in real

practice due to the limitation of staffs and time. The second opinion was about the patient's compliance. The third was about the effectiveness of the index

Item 4.6: Manage patients' recall, assess treatment results and provide or recommend additional action

Faculty staffs argued that the dental school itself did not have the distinct recall system. Recall was a strategy to prevent oral diseases and maintain good oral health. Patient self-care should be promoted. It was possible to set a system where dental assistants could manage the job.

Dental practitioners also agreed that follow-up was a good strategy but dental assistants could be very helpful in making appointments.

4.2.5 EMERGENCY SITUATIONS

The second major competency in this domain deals with emergency situations, which has 7 competency statements

4.2.5.1 RESULT FROM THE RATING SCALE

Overall, both groups gave high rates for this major competency. The means \pm SD of the rating scales rated for 7 competency statements ranged from 4.32 ± 0.74 to 4.71 ± 0.55 by the Faculty staffs and 4.21 ± 0.87 to 4.66 ± 0.57 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according the ranked order of the rating scales. Table 4.13 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to the chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed were 1:6 statements from both the Faculty staffs and the dental practitioners.

The competency statement that was rated as mostly agreed by both groups was Item 5.7.

Item 5.6 was the competency statement that was rated with the lowest score by both groups.

For the faculty staffs,

- Item 5.7 was rated with the highest mean (4.71) and the smallest standard deviation (0.55)
- Item 5.6 was rated with the lowest mean (4.32)
- Item 5.4 was rated with the largest standard deviation (0.80).

For the dental practitioners,

- Item 5.7 was rated with the highest mean (4.66) and the smallest standard deviation (0.57)
- Item 5.6 was rated with the lowest mean (4.21) and the largest standard deviation (0.87)

There were high relative agreement of the opinion between the faculty staffs and the general practitioners. The largest difference of mean was only 0.12 in item 5.1

4.2.5.2 RESULT FROM THE OPEN-ENDED PART

Item 5.1: Develop and implement an effective office strategy for preventing and managing medical and dental emergencies in the office and establish life support equipment in the office

Faculty staffs stressed the importance of this competency. Dentists should be aware that laws on the matter had been past. The dental schools, however, only provided knowledge but no practice experiences were given.

Table 4.13 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Emergency situations

Competency statements in brief	Faculty staffs						Dental Practitioners									
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
5.1 Develop strategy for preventing and managing emergencies	84	50 (59.5%)	23 (27.4%)	10 (11.9%)	1 (1.2%)	-	4.45	0.75	147	76 (51.7%)	47 (32.0%)	20 (13.6%)	4 (2.7%)	-	4.33	0.81
5.2 Perform basic life support	85	46 (54.1%)	28 (32.9%)	10 (11.8%)	1 (1.2%)	-	4.40	0.74	147	83 (56.5%)	44 (29.9%)	17 (11.6%)	3 (2.0%)	-	4.41	0.77
5.3 Recognize and manage dental Emergencies	85	47 (55.3%)	26 (30.6%)	12 (14.1%)	-	-	4.41	0.73	147	86 (58.5%)	47 (32.0%)	13 (8.8%)	1 (0.7%)	-	4.48	0.69
5.4 Manage dental emergencies related to treatment complications	85	44 (51.8%)	28 (32.9%)	11 (12.9%)	2 (2.4%)	-	4.34	0.80	147	75 (51.0%)	55 (37.4%)	14 (9.5%)	3 (2.0%)	-	4.37	0.74
5.5 Manage emergency related to pharmacological employed	85	45 (52.9%)	30 (35.3%)	8 (9.4%)	2 (2.4%)	-	4.39	0.76	147	79 (53.7%)	47 (32.0%)	19 (12.9%)	2 (1.4%)	-	4.38	0.76
5.5 Explain and discuss use of pharmacological Agents in life threatening	85	40 (47.1%)	33 (38.8%)	11 (12.9%)	1 (1.2%)	-	4.32	0.74	147	66 (44.9%)	53 (36.1%)	22 (15.0%)	5 (3.4%)	1 (0.7%)	4.21	0.87
5.7 Recognize & refer case beyond capability	85	64 (75.3%)	17 (20.0%)	4 (4.7%)	-	-	4.71	0.55	147	102 (70.3%)	36 (24.8%)	7 (4.8%)	-	-	4.66	0.57

Dental practitioners noticed that they never had equipments for dealing with emergency situations. In hospitals, the equipments were available in the emergency room.

Item 5.2: Perform basic life support for medical emergencies

All faculty staffs and dental practitioners who gave further opinions agreed that it was important to have this competency and practice skills should be developed in the dental schools.

Item 5.3: Recognize and manage dental emergencies

Faculty staffs had the opinion that new dental graduates could do this at a certain level. Dental practitioners were concerned about practice skill.

Item 5.4: Manage dental emergencies related to treatment complications and failures

Faculty staffs said this competency needed 3-5 years of working experiences. Dental practitioner said practice was necessary to be able to do so.

Item 5.5: Manage emergencies related to pharmacological agents employed in dental treatment.

Faculty staffs mentioned that the use of pharmacology's agents with patients who had systemic diseases should be done cautiously.

A dental practitioner said pharmacology knowledge learned from the dental school was not of much help. Others said it was better to consult or to refer the case to physician.

Item 5.6: Explain and discuss the use of pharmacological agents in life threatening medical emergencies

Faculty staffs felt this competency was too difficult. Other felt that pharmacological agents changed quickly and should be regularly kept updated.

Dental practitioners thought that the use of pharmacological agents in life threatening medical emergencies should be trained and dental students should be exposed to real situation in the emergency room. Other felt that physicians were in a better position to handle these problems.

Item 5.7: Recognize and promptly refer dental and medical emergencies that are beyond the scope of management of a general dentist

Faculty staff mentioned that dentists should know their own ability and limits. Ability to do first aid was important. Another said general practitioners should be able to handle general dental emergencies except in complicated problems such as maxillo-facial injuries. Dental graduates should also learn to properly refer the case.

Dental practitioners preferred to be identified as each individual not as “general practitioner” as a whole. The reason was everybody had different level of competency. General practitioners who were as capable as a physician would only be identified to cope with the problems.

Other opinion concerning about this major competency was that this competency was so important that the dental school should try to develop the students' skill in the curriculum so that new dental graduates were familiar with and be able to handle the situation in real practice.

4.2.6 CONTROL OF PAIN AND ANXIETY

The third major competency in this domain deals with the ability to control of pain and anxiety. It has 7 competency statements.

4.2.6.1 RESULT OF THE RATING SCALE

The means \pm SD of the rating scales rated for the 7 competency statements ranged from 2.61 ± 1.09 to 4.88 ± 0.36 by the Faculty staffs and 2.61 ± 1.10 to 4.88 ± 0.35 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according the ranked order of the rating scales. Table 4.14 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed: moderately agreed were 1:3:3 statements from the Faculty staffs and 2:2:3 statements from the dental practitioners.

The ranked orders of the mean scores, given to the competency statements of this major competency, from the first to the third were the same in both groups. The first rank was Item 6.3. The second rank was Item 6.1. The third rank was Item 6.2.

Item 6.4, was the competency statement that was rated the lowest score by both Faculty staffs and dental practitioners.

For the faculty staffs and dental practitioners,

- Item 6.3 was rated with the highest mean (4.88 for both groups) and lowest standard deviation (0.36 for Faculty staffs and 0.35 for dental practitioners).

Table 4.14 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Control of Pain and Anxiety

Competency statements in brief	Faculty staffs										Dental Practitioners					
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
6.1 Prevent pain and anxiety	85	41 (48.2%)	36 (42.4%)	8 (9.4%)	-	-	4.39	0.66	147	87 (59.2%)	52 (35.4%)	8 (5.4%)	-	-	4.54	0.60
6.2 Select & prescribe drugs for pain & anxiety	85	34 (40.0%)	35 (41.2%)	13 (15.3%)	3 (3.5%)	-	4.18	0.82	146	61 (41.8%)	62 (42.5%)	20 (13.7%)	2 (1.4%)	1 (0.7%)	4.23	0.79
6.3 Use local anesthesia techniques	85	76 (89.4%)	8 (9.4%)	1 (1.2%)	-	-	4.88	0.36	147	130 (88.4%)	16 (10.9%)	1 (0.7%)	-	-	4.88	0.35
6.4 Use inhalation sedation techniques	84	4 (4.8%)	9 (10.7%)	39 (46.4%)	14 (16.7%)	18 (21.4%)	2.61	1.09	147	9 (6.1%)	16 (10.9%)	58 (39.5%)	36 (24.5%)	28 (19.0%)	2.61	1.10
6.5 Explain & discuss use of non-pharmacological modalities	83	18 (21.7%)	26 (31.3%)	33 (39.8%)	5 (6.0%)	1 (1.2%)	3.66	0.93	146	48 (32.9%)	43 (29.5%)	45 (30.8%)	10 (6.8%)	-	3.88	0.95
6.6 Explain & discuss use of intravenous sedation	85	3 (3.5%)	12 (14.1%)	43 (50.6%)	17 (20.0%)	10 (11.8%)	2.78	0.96	147	16 (10.9%)	26 (17.7%)	53 (36.1%)	31 (21.1%)	21 (14.3%)	2.90	1.18
6.7 Explain & discuss use of general anesthesia	85	4 (4.7%)	8 (9.4%)	41 (48.2%)	19 (22.4%)	13 (15.3%)	2.66	1.01	147	22 (15.0%)	27 (18.4%)	48 (32.7%)	25 (17.0%)	25 (17.0%)	2.97	1.28

- Item 6.4 was rated with the lowest mean (2.61 for both groups) and highest standard deviation (1.09 for Faculty staffs)
- Item 6.7 was rated with the highest standard deviation (1.28) for the general practitioners.

The performance profiles showed high relative opinion agreement between both groups. The largest difference of mean was 0.21 for item 6.7

4.2.6.2 RESULT FROM THE OPEN-ENDED PART

Item 6.1 Prevent pain and anxiety associated with dental procedure

Both faculty staffs and dental practitioners stated that to be able to manage patients' pain and anxiety, they should have good knowledge of psychology aspects of management. Other opinion was that this competency was necessary, as it would result in better patient compliance. Dentists would then be able to work smoothly, efficiently and speedily.

Item 6.2: Select and prescribe drugs for the management of pain and anxiety

Faculty staffs most agreed with the management of pain but least agreed with the management of anxiety. Some mentioned that at present new dental graduates might not be competent enough because pharmacological disciplines taught did not achieve their objectives.

Dental practitioners mostly concerned about prescribing drugs to manage anxiety. They felt that they were not competent enough to do so.

Item 6.3 Use local anesthesia techniques

Both faculty staffs and dental practitioners mostly agreed with this competency.

Item 6.4: Use inhalation sedation techniques

Both faculty staffs and dental practitioners gave extensive discussion about this ability. Ten of them mentioned that those who practiced needed special training. The dental school should have continuing education course. Seven of them said that this competency should be taught in post-graduated courses. Six of them considered that anesthesiologists should be in charge. Two of them thought that the use of nitrous oxide/oxygen techniques could be taught in the undergraduate level. Others said for new dental graduates, it was right to have some knowledge, but it was not appropriate to practice and they should consult for help or refer.

Item 6.5: Explain and discuss the use of non-pharmacological modalities to control pain and anxiety

Both faculty staffs and dental practitioners felt that this competency statement was not quite clear because it was not quite specific which techniques were involved.

Item 6.6: Explain and discuss the use of intravenous sedation

Most faculty staffs and dental practitioners agreed that new dental graduates should have general knowledge about the use of intravenous sedation but they might not practice administration of intravenous sedation. Some said it would be better to teach at the postgraduate level. Some preferred to consult or refer to a specialist or a physician.

Item 6.7 Explain and discuss the use of general anesthesia

Most faculty staffs and dental practitioners felt that this competency should be taught at postgraduate level. Some agreed that new dental

graduates should be able to explain in general. Some thought others who have deeper knowledge like anesthesiologists should explain.

4.2.7 SURGICAL THERAPY

The fourth major competency in this domain deals with surgical therapy. It comprises of 10 minor competency statements.

4.2.7.1 RESULT FROM THE RATING SCALE

The means \pm SD of the rating scales rated for the 10 competency statements ranged from 4.00 ± 0.87 to 4.89 ± 0.32 by the Faculty staffs and 3.60 ± 0.99 to 4.93 ± 0.32 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according to the ranked order of the rating scales. Table 4.15 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The statements that were rated as mostly agreed: agreed were 4:6 statements from the Faculty staffs and 6:4 statements from the dental practitioners.

The Items that were rated as mostly agreed by both Faculty staffs and dental practitioners included Item 7.1, Item 7.3, Item 7.7 and Item 7.8

For both faculty staffs and dental practitioners,

- Item 7.1 was rated with the highest mean (4.89 by Faculty staffs and 4.93 by dental practitioners) and the smallest standard deviation (0.33 by Faculty staffs and 0.32 by dental practitioners)

- Item 7.9 was rated the lowest mean (4.00. by Faculty staffs and 3.60 by dental practitioners) and the largest standard deviation (0.87 by Faculty staffs and 0.99 by dental practitioners)

There were relatively agreement between faculty staffs and dental practitioners. None of the items was rated differently more than 0.5. The largest mean difference was 0.68 for item 7.10

4.2.7.2 RESULT FROM THE OPEN-ENDED PART

Item 7.1: Perform an uncomplicated tooth extraction

One dental practitioner felt that new dental graduates should be able to perform all kinds of tooth extraction.

Item 7.2: Perform a surgical extraction of an erupted tooth

Faculty staffs stated that the extraction of some erupted teeth sometimes was even more difficult than the management of some impactions. Another questioned whether the erupted tooth in this statement meant partial eruption.

Dental practitioners questioned whether the word "surgical" meant a major or a minor surgery.

Item 7.4: Perform the surgical removal of uncomplicated impacted and unerupted teeth

Faculty staffs mentioned that sometimes it was difficult to evaluate whether the situation was complicated or not for the one who had little experiences.

Table 4.15 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Surgical Therapy

Competency statements in brief	Faculty staffs										Dental Practitioners					
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
7.1 Extract uncomplicated tooth	9	8 (88.9%)	1 (11.1%)	-	-	-	4.89	0.33	147	139 (94.6%)	7 (4.8%)	1 (0.7%)	-	-	4.93	0.32
7.2 Surgical extraction of erupted tooth	9	4 (44.4%)	5 (55.6%)	-	-	-	4.44	0.53	147	112 (76.2%)	28 (19.0%)	7 (4.8%)	-	-	4.71	0.55
7.3 Remove uncomplicated fractured or residual root tips	9	7 (77.8%)	2 (22.2%)	-	-	-	4.78	0.44	147	126 (85.7%)	16 (10.9%)	5 (3.4%)	-	-	4.82	0.46
7.4 Surgical remove uncomplicated impaction	9	5 (55.6%)	3 (33.3%)	1 (11.1%)	-	-	4.44	0.73	147	113 (76.9%)	29 (19.7%)	5 (3.4%)	-	-	4.73	0.51
7.5 Perform uncomplicated pre prosthetic surgery	9	3 (37.5%)	5 (62.5%)	-	-	-	4.38	0.52	147	94 (63.9%)	30 (20.4%)	21 (14.3%)	2 (1.4%)	-	4.47	0.79
7.6 Perform uncomplicated soft tissue biopsy	9	4 (44.4%)	4 (44.4%)	1 (11.1%)	-	-	4.33	0.71	147	79 (53.7%)	39 (26.5%)	25 (17.0%)	4 (2.7%)	-	4.31	0.85
7.7 Treat uncomplicated odontogenic infection	9	5 (55.6%)	4 (44.4%)	-	-	-	4.56	0.53	147	107 (72.8%)	32 (21.8%)	8 (5.4%)	-	-	4.67	0.58
7.8 Manage common postoperative surgical complications	9	6 (66.7%)	2 (22.2%)	1 (11.1%)	-	-	4.56	0.73	147	94 (63.9%)	39 (26.5%)	11 (7.5%)	3 (2.0%)	-	4.52	0.72
7.9 Explain & discuss surgical placement of osseo-integrated dental implants	9	3 (33.3%)	3 (33.3%)	-	-	-	4.00	0.87	147	30 (20.4%)	49 (33.3%)	50 (34.0%)	15 (10.2%)	3 (2.0%)	3.60	0.99
7.10 Explain & discuss complicated surgery	9	3 (33.3%)	6 (66.7%)	-	-	-	4.33	0.50	147	29 (19.7%)	54 (36.7%)	51 (34.7%)	10 (6.8%)	3 (2.0%)	3.65	0.94

Item 7.5: Perform an uncomplicated pre prosthetic surgery

Dental practitioners said they would like to have training in this ability at the undergraduate level.

Item 7.6: Perform an uncomplicated soft tissue biopsy

Dental practitioners had two concerns. The first concern was that one should be able to correctly diagnose the case because some lesions were prone to extensive bleeding. The second concern was that this competency should be trained at the undergraduate level.

Item 7.9: Explain and discuss the indications, contra-indications, principles and techniques involves in surgical placement of Osseo integrated dental implants

Faculty staffs considered this competency not necessary for new dental graduates.

Dental practitioners stated that it might be necessary for one who practiced in big cities. Some preferred to refer to specialists. Other said he had not learned enough about this at the undergraduate level.

Other opinions from one dental practitioner concerning about this major competency were that the dental school should find strategy to recruit more patients so that undergraduates had enough chances to be trained and practiced under supervision of faculty staffs. He emphasized that these competencies were needed in real life practice where new dental graduates had to manage cases in general hospitals.

4.2.8 PERIODONTAL THERAPY

The fifth major competency deals with periodontal treatment. Five minor competency statements are presented in this category.

4.2.8.1 RESULTS FROM THE RATING SCALE

The means \pm SD of the rating scales rated for the 5 competency statements ranged from 4.33 ± 0.71 to 4.89 ± 0.33 by the Faculty staffs and 4.05 ± 0.77 to 4.83 ± 0.41 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according to the ranked order of the rating scales. Table 4.16 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed were 4:1 statements from the Faculty staffs and 3:2 statements from the dental practitioners.

The competency statements that were rated as mostly agreed, by both Faculty staffs and dental practitioners were Item 8.1, Item 8.2 and Item 8.5.

Item 8.4 was rated the lowest mean by both faculty staffs and dental practitioners.

For the faculty staffs,

- Item 8.5 was rated with the highest mean (4.89) and the smallest standard deviation (0.33)
- Item 8.4 was rated with the lowest mean (4.33) and the largest standard deviation (0.71).

For the general practitioners,

- Item 8.2 was rated with the highest mean (4.83) and the smallest standard deviation (0.41)
- Item 8.4 was rated with the lowest mean (4.05) and the largest standard deviation (0.77).

There were relatively agreement between faculty staffs and general practitioners. The largest mean difference was only 0.39 for Item 8.3.

4.2.8.2 RESULT FROM THE OPEN ENDED-PART

Item 8.1: Detect subgingival calculus

Faculty staffs stressed the importance of this competency. This competency distinguishes dentists from dental hygienists so new dental graduates must be able to correctly detect sub-gingival calculus.

Item 8.2: Perform scaling and root planning

Faculty staffs stated that new dental graduates must be competent in both scaling and root planning to the extent that they could really treat periodontal diseases. Dental practitioners felt that few dentists could really perform this competency. Severe cases should be referred.

Table 4.16 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Periodontal Therapy

Competency statements in brief	Faculty staffs										Dental Practitioners					
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
8.1 Detect sub gingival calculus	9	8 (88.9%)	1 (11.1%)	-	-	-	4.89	0.33	147	125 (85.0%)	19 (12.9%)	2 (1.4%)	1 (0.7%)	-	4.82	0.46
8.2 Perform scaling and root planing	9	7 (77.8%)	2 (22.2%)	-	-	-	4.78	0.44	147	124 (84.4%)	21 (14.3%)	2 (1.4%)	-	4.83	0.41	
8.3 Evaluate treatment results and monitor maintenance program	9	7 (77.8%)	2 (22.2%)	-	-	-	4.78	0.44	147	78 (53.1%)	51 (34.7%)	16 (10.9%)	2 (1.4%)	4.39	0.74	
8.4 Explain & discuss surgical procedures	9	4 (44.4%)	4 (44.4%)	1 (11.1%)	-	-	4.33	0.71	147	45 (30.6%)	68 (46.3%)	31 (21.1%)	3 (2.0%)	4.05	0.77	
8.5 Refer difficult cases to specialists	9	8 (88.9%)	1 (11.1%)	-	-	-	4.89	0.33	147	88 (59.9%)	52 (35.4%)	5 (3.4%)	1 (0.7%)	4.53	0.67	

Item 8.3: Evaluate the results of periodontal treatment and establish and monitor a maintenance program

Faculty staffs felt that the treatment and control of periodontal diseases were basic competencies that general practitioner should have and should be responsible.

Dental practitioners felt that lack of time and patients' compliance were the obstacles to establish efficient maintenance program.

Item 8.4: Explain and discuss with patients about periodontal surgical procedures

Both faculty staffs and dental practitioners felt that new dental graduates should have proper knowledge to explain to patients who needed advance treatment and to refer them to specialists.

4.2.9 ENDODONTIC THERAPY

The sixth competency involves Endodontic therapy, which comprises of 9 competency statements.

4.2.9.1 RESULT OF THE RATING SCALE

Overall, both groups gave high rates to this major competency. Apart from Item 9.9, which was rated average mean 3.93 from the Faculty staffs, none of the 9 competency statements got lower than 4.00 average score.

The means \pm SD of the rating scales rated for the 9 competency statements ranged from 3.93 ± 0.88 to 4.73 ± 0.46 by the Faculty staffs and 4.08 ± 0.91 to 4.73 ± 0.58 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in

Table 4.8 according to the ranked order of the rating scales. Table 4.17 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed were 5:4 by the Faculty staffs and 3:6 by the dental practitioners.

The competency statements that were rated as mostly agreed, by both Faculty staffs and dental practitioners were Item 9.1, Item 9.2 and Item 9.7.

For the Faculty staffs

- Item 9.1, Item 9.2 and Item 9.6 were rated with the highest mean (4.73) and the smallest standard deviation (0.46)
- Item 9.9 was rated with the lowest mean (3.93) and the largest standard deviation (0.88).

For the dental practitioners,

- Item 9.1 was rated with the highest mean (4.73) and the smallest standard deviation (0.58)
- Item 9.5 was rated with the lowest mean (4.08) and the largest standard deviation (0.91).

There were relative agreement in opinion between the faculty staffs and the dental practitioners. None of the item had mean difference more than 0.50. The largest mean difference was 0.45 for item 9.5.

4.2.9.2 RESULT FROM THE OPEN-ENDED PART

Item 9.1 Manage pathologic conditions of the pulp and periradicular tissues

Faculty staffs felt that new dental graduates should be able to treat uncomplicated single or double rooted teeth and refer multi-rooted teeth to specialists.

Item 9.2: Perform vital pulp therapy

Faculty staffs felt that new dental graduates should be able to perform vital pulp therapy for uncomplicated single or double rooted teeth and refer multi-rooted teeth to specialists.

Item 9.3: Perform non-surgical root canal treatment on uncomplicated single and multi-rooted teeth including molars

Faculty staffs agreed with the competency to treat single or double rooted teeth but did not agree to include molars. Some said new dental graduates should be able to do so if they were interested enough.

Dental practitioners gave various opinions. Some concerned the patients' needs. They said it was very necessary in the community hospitals and there were long waiting lists. Some preferred to refer molars to specialists. Others thought treatment experiences were necessary and the dental school did not provide them with training of this competency at the undergraduate level.

Table 4.17 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Endodontic Therapy

Competency statements in brief	Faculty staffs										Dental Practitioners					
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
9.1 Manage pathologic pulp & periradicular tissues	15	11 (73.3%)	4 (26.7%)	-	-	-	4.73	0.46	147	116 (78.9%)	23 (15.6%)	7 (4.8%)	1 (0.7%)	-	4.73	0.58
9.2 Perform vital pulp therapy	15	11 (73.3%)	7 (26.7%)	-	-	-	4.73	0.46	147	109 (74.1%)	31 (21.1%)	6 (4.1%)	1 (0.7%)	-	4.69	0.58
9.3 Perform non-surgical root canal treatment	15	6 (40.0%)	4 (26.7%)	5 (33.3%)	-	-	4.07	0.88	147	92 (62.6%)	37 (25.2%)	15 (10.2%)	3 (2.0%)	-	4.48	0.76
9.4 Perform uncomplicated root canal retreatment	15	6 (40.0%)	7 (46.7%)	2 (13.3%)	-	-	4.27	0.70	147	77 (52.4%)	42 (28.6%)	18 (12.2%)	8 (5.4%)	2 (1.4%)	4.25	0.96
9.5 Perform non-vital bleaching	15	9 (60.6%)	5 (33.3%)	1 (6.7%)	-	-	4.53	0.64	147	55 (37.4%)	59 (40.1%)	25 (17.0%)	6 (4.1%)	2 (1.4%)	4.08	0.91
9.6 Follow up success & failure	15	11 (73.3%)	4 (26.7%)	-	-	-	4.73	0.46	147	80 (54.4%)	49 (33.3%)	15 (10.2%)	2 (1.4%)	1 (0.7%)	4.39	0.78
9.7 Manage traumatic injuries	15	10 (66.7%)	3 (20.0%)	2 (13.3%)	-	-	4.53	0.74	147	91 (62.3%)	41 (28.1%)	14 (9.6%)	-	-	4.53	0.67
9.8 Explain & discuss apexogenesis and apexification	15	7 (46.7%)	7 (46.7%)	1 (6.7%)	-	-	4.33	0.82	147	77 (52.7%)	48 (32.9%)	20 (13.7%)	1 (0.7%)	-	4.38	0.74
9.9 Explain & discuss surgical endodontics	15	4 (26.7%)	7 (46.7%)	3 (20.0%)	1 (6.7%)	-	3.93	0.88	147	55 (37.7%)	54 (37.0%)	35 (24.0%)	2 (1.4%)	-	4.11	0.81

Item 9.4: Perform uncomplicated Endodontic retreatment procedure on single canal teeth

Faculty staffs felt that new dental graduates should be able to retreat uncomplicated single or double rooted teeth and refer multi-rooted teeth to specialists. One said if the retreat case had complex etiology, the retreatment might not be successful.

Dental practitioners preferred referral to specialists.

Item 9.5: Perform non-vital bleaching procedures on endodontically treated teeth

Faculty staffs felt that knowledge from lecture was enough to perform this treatment if dentists would like to do.

Dental practitioners wanted this statement to include vital bleaching. One said that he never practiced this competency in the dental school. One mentioned that proper protection to prevent resorption should also be included in the curriculum.

Item 9.6: Prescribe an appropriate recall schedule and determine the success or failure of Endodontic treatment

Faculty staffs stressed the importance of recall.

Item 9.7: Manage pulpal and periradicular disorders of traumatic origin

Dental practitioners felt that nowadays new dental graduates could not make appropriate plan for patient with traumatic injuries and that often worsened the situation.

Item 9.8 : Explain and discuss indications, contra indications, principle and techniques involved apexogenesis and apexification

Faculty staffs considered that practice experiences were needed to be able to do this competency in real practice.

Dental practitioners thought that new dental graduates should also be able to perform apexogenesis and apexification. One preferred referral the case to specialists.

Item 9.9: Explain and discuss indications, contra indications, principle and techniques involved surgical endodontics

Dental practitioners stated that cases should be referred.

One other opinion concerning this major competency was that the correction of perforation should be included in the undergraduate curriculum because the problem was found frequently in real practice.

4.2.10 OCCLUSAL THERAPY

The sixth competency in this domain deal with occlusal therapy which is consisted of seven competency statements.

The means \pm SD of the rating scales rated for the 7 competency statements ranged from 3.83 ± 0.98 to 4.83 ± 0.41 by the Faculty staffs and 3.58 ± 0.99 to 4.12 ± 0.80 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according to the ranked order of the rating scales. Table 4.18 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed: moderately agreed were 5:2:0 statements from the Faculty staffs and 0:7:0 statements from dental practitioners.

Faculty staffs gave high scores with the same average mean of 4.83 to five out of seven Items. The five competency statements included: Item 10.1, Item 10.2, Item 10.3, Item 10.4, and Item 10.5,

Item 10.1 was also rated with the highest mean by the dental practitioners.

Item 10.7 was rated with the lowest mean by both faculty staffs and dental practitioners

For the faculty staffs,

- Item 10.1, 10.2, 10.3, 10.4, and 10.5 were rated with the highest mean (4.83) and the smallest standard deviation (0.41)
- Item 10.7 was rated with the lowest mean (3.83) and the largest standard deviation (0.98)

For the dental practitioners,

- Item 10.1 was rated with the highest mean (4.12) and the smallest standard deviation (0.80)
- Item 10.7 was rated with the lowest mean (3.58) and the largest standard deviation (0.99).

Although none of the Items had mean difference of more than 1.0, there were relatively lower agreement of dental practitioners compared with faculty staffs in all items. While faculty staffs mostly agreed with all items except items 10.6 and 10.7, none of the items were rated as mostly agreed by the dental practitioners.

Table 4.18 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Occlusal Therapy

Competency statements in brief	Faculty staffs										Dental Practitioners					
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
10.1 Analyze existing occlusal relationships	6	5 (83.3%)	1 (16.7%)	-	-	-	4.83	0.41	147	55 (37.4%)	57 (38.8%)	33 (22.4%)	2 (1.4%)	-	4.12	0.80
10.2 Diagnose occlusal dysfunction	6	5 (83.3%)	1 (16.7%)	-	-	-	4.83	0.41	147	51 (34.7%)	57 (38.8%)	32 (21.8%)	7 (4.8%)	-	4.03	0.87
10.3 Manage occlusal dysfunction using conventional methods	6	5 (83.3%)	1 (16.7%)	-	-	-	4.83	0.41	147	55 (37.4%)	53 (36.1%)	34 (23.1%)	5 (3.4%)	-	4.07	0.86
10.4 Fabricate occlusal bite plane splint	6	5 (83.3%)	1 (16.7%)	-	-	-	4.83	0.41	146	42 (28.8%)	48 (32.9%)	47 (32.3%)	8 (5.5%)	1 (0.7%)	3.84	0.93
10.5 Provide restorative treatment to establish & maintain occlusal harmony	6	5 (83.3%)	1 (16.7%)	-	-	-	4.83	0.41	147	44 (29.9%)	52 (35.4%)	42 (28.6%)	9 (6.1%)	-	3.89	0.91
10.6 Explain rationale of occlusal adjustment	6	3 (50.0%)	2 (33.3%)	1 (16.7%)	-	-	4.33	0.82	146	48 (32.9%)	50 (34.2%)	35 (24.0%)	12 (8.2%)	1 (0.7%)	3.90	0.98
10.7 Explain rationale of surgical therapy to treat TMJ and facial pain disorders	6	2 (33.3%)	1 (16.7%)	3 (50.0%)	-	-	3.83	0.98	14	30 (20.4%)	46 (31.3%)	53 (36.1%)	15 (10.2%)	3 (2.0%)	3.58	0.99

4.2.10.2 RESULT FROM THE OPEN-ENDED PART

Item 10.1: Analyze existing occlusal relationships using diagnostic dental casts mounted in centric relation

Faculty staffs stressed that this was the basic competency that new dental graduates should be able to perform.

One dental practitioner was concerned about the lack of articulators in community hospitals. Another said that it was the competency that new dental graduates should be able to do, but nobody did in real practice. One commented that occlusion was one of the most difficult subject to understand so faculty staffs who taught the subject need to be really good in transferring the knowledge to students.

Item 10.2: Diagnose occlusal dysfunction, myofascial pain dysfunction, and/or temporomandibular joint dysfunction

Faculty staffs said that this competency was very important to the treatment in this clinical area.

Dental practitioners emphasized the importance of this competency. One found a lot of cases but did not know what to do. The problems were that little was learned in the dental school, and there were no specialists in general hospitals to refer the case to. Another said it was difficult to gain this competency. One preferred referral the case to specialists.

Item 10.3: Manage occlusal dysfunction using conservative treatment methods

Faculty staffs stated that conservative treatment should not be specified because some case might need other supplementary treatments.

Concerning poor patients in the rural area, a dental practitioner stressed the importance for general practitioners to be able to provide primary care for patients with occlusal problems. Some considered that cases should be referred.

Item 10.4: Fabricate an occlusal bite plane splint to provide treatment of occlusal dysfunction

Faculty staffs stressed that this competency should be based on valid knowledge.

Item 10.5: Provide restorative treatment to establish or maintain occlusal harmony based on knowledge of occlusal concepts and understanding of the function of the masticatory system

Faculty staffs considered this competency as one requirement for the professional.

Dental practitioners mentioned that both knowledge and experiences were needed to achieve this competency.

Item 10.6: Explain the rationale for an occlusal adjustment, including indications, contra indications and techniques

Faculty staffs felt that techniques involved occlusal adjustments were too complicated for the undergraduates to learn.

Item 10.7: Explain and discuss the rationale of surgical therapy to treat temporomandibular joint and facial pain disorders

Faculty staffs considered that for new dental graduates, only general knowledge was required.

Dental practitioners felt that cases should be referred to specialist.

4.2.11 ORTHODONTIC THERAPY

The seventh competency deal with orthodontic therapy which comprises of 5 competency statements

4.2.11.1 RESULT OF THE RATING SCALE

The means \pm SD of the rating scales rated for the 5 competency statements ranged from 2.63 ± 1.19 to 3.50 ± 0.76 by the Faculty staffs and 3.61 ± 1.16 to 4.21 ± 0.83 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according to the ranked order of the rating scales. Table 4.19 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed: moderately agreed were 0:2:3 statements by the Faculty staffs and 0:5:0 statements by the dental practitioners. It should be noted that two competency statements, that were rated as agreed from the faculty staffs, had the average mean of 3.50 which was the lowest score to be classified as "agreed" level.

Item 11.1 and Item 11.3 were rated with the highest mean of 3.50 by the faculty staffs.

For the dental practitioners, Item 11.1 was rated the first with a mean of 4.21 whereas Item 11.2 was rated the second with a mean of 4.17.

The competency statement that was rated with the lowest mean by both groups was Item 11.5.

For the faculty staffs,

- Item 11.1 and Item 11.3 were rated with the highest mean (3.50)
- Item 11.5 was rated with the lowest mean (2.63)
- Item 11.2 was rated with the smallest standard deviation (0.74)
- Item 11.5 was rated with the largest standard deviation (1.19).

For the general practitioners,

- Item 11.1 was rated with the highest mean (4.21)
- Item 11.5 was rated with the lowest mean (3.61)
- Item 11.1 was rated with the smallest standard deviation (0.83)
- Item 11.5 was rated with the largest standard deviation (1.16).

Although none of the item was rated mean difference between both groups for more than 1.0, there were relatively higher agreement of general practitioner compared with faculty staff in all items. The faculty staff agreed with 2 competency statements, which were rated the lowest score to be interpreted as agreed. The rests received moderate agreement. Dental practitioner agreed with all items regarding this major competency.

Table 4.19 Frequencies, Means \pm SD and performance profile of the rating scale given to the statements in major competency :
Orthodontic Therapy

Competency statements in brief	Faculty staffs										Dental Practitioners					
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
11.1 Recognize normal growth & development of cranio facial complex and occlusion	8	1 (12.5%)	2 (25.0%)	5 (62.5%)	-	-	3.50	0.76	147	64 (43.5%)	55 (37.4%)	23 (15.6%)	5 (3.4%)	-	4.21	0.83
11.2 Recognize interferences and take action	8	-	4 (50.0%)	3 (37.5%)	1 (12.5%)	-	3.38	0.74	147	60 (40.8%)	55 (37.4%)	26 (17.7%)	6 (4.1%)	-	4.15	0.85
11.3 Design, insert, adjust space maintainers	8	2 (25.0%)	1 (12.5%)	4 (50.5%)	1 (12.5%)	-	3.50	1.07	147	64 (43.5%)	52 (35.4%)	23 (15.6%)	8 (5.4%)	-	4.17	0.89
11.4 Design, insert, adjust active appliance to move single tooth or segment	8	1 (12.5%)	2 (25.0%)	4 (50.0%)	1 (12.5%)	-	3.38	0.92	147	43 (29.3%)	44 (29.9%)	39 (26.5%)	17 (11.6%)	4 (2.7%)	3.71	1.09
11.5 Explain and discuss full arch treatment	8	-	2 (25.0%)	3 (37.5%)	1 (12.5%)	2 (25%)	2.63	1.19	147	38 (25.9%)	49 (33.3%)	33 (22.4%)	19 (12.9%)	8 (5.4%)	3.61	1.16

4.2.11.2 RESULTS FROM THE OPEN-ENDED PART

None of faculty staffs gave additional opinions on the competency statements but dental practitioners gave additional opinions to item 11.3-11.5.

Item 11.3: Design, insert and adjust space maintainers

A dental practitioner said that she practiced doing this only in the laboratory but had never done in real practice. Other considered the range of this competency for new dental graduates was to be able to handle simple cases such as 1-2 teeth missing. Another commented that this competency might not be essential for the patients in rural area as poverty and poor education were barriers to patients' interests and the government did not subsidized the cost of treatment.

Item 11.4: Design, insert and adjust an active appliance to move a single tooth or a segment of an arch

Dental practitioners commented that there were not enough practice experiences in the undergraduate clinic. One said no clinical practice experiences were gained at all. Another stated that patients concerned more about their front teeth and would seek treatment if they had enough money. The government did not subsidize this kind of treatment.

Item 11.5: Explain and discuss full arch treatment utilizing active appliance therapy

Dental practitioners considered this competency to be used to give accurate advice to patients. Another commented about the word " active appliances". In his view, active appliances would cover both fixed and removable appliances. Since he felt that general practitioners should be able

to apply removable appliances on patients, the statement then should clearly stated about this.

4.2.12 ORAL MUCOSAL THERAPY

The last major competency in this domain concerns about oral mucosal therapy. There are 2 competency statements in this category.

4.2.12.1 RESULT OF THE RATING SCALE

Both competency statements regarding this major competency were rated as agreed by both Faculty staffs and dental practitioners.

For the faculty staffs, the first Item 12.1, counsel the patient regarding the nature and severity of their disease or disorder and manage the patient appropriately was rated with a mean score of 4.13 and a standard deviation of 0.83. The second item, Item 12.2, recognizes the need for limited soft tissue surgery, including biopsy, and manage appropriately. It was rated with a mean score of 3.75 and a standard deviation of 1.16. (see Table 4.20)

Dental practitioners gave mean score of 4.24 and standard deviation of 0.73 to item 12.1. Item 12.2 was rated with a mean score of 3.96 and a standard deviation of 0.96.

The mean differences between both groups were 0.11 for Item 12.1 and 0.21 for Item 12.2.

Table 4.20 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Oral Mucosal Therapy

Competency statements in brief	Faculty staffs						Dental Practitioners									
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
12.1 Counsel and manage patients with oral mucosal diseases	8	3 (37.5%)	3 (37.5%)	2 (25.0%)	-	-	4.13	0.83	147	61 (41.5%)	60 (40.8%)	26 (17.7%)	-	-	4.24	0.73
12.2 Recognize and manage need of soft tissue surgery	8	2 (25.0%)	4 (50.0%)	2 (25.0%)	-	-	3.75	1.16	147	53 (36.1%)	45 (30.6%)	40 (27.6%)	8 (5.4%)	1 (0.7%)	3.96	0.96

4.2.12.2 RESULT FROM THE OPEN-ENDED PART

Item 12.1: Counsel the patient regarding the nature and severity of their disease or disorder and manage the patient appropriately

Comments from faculty staffs were, firstly, the range of competency of new dental graduates should cover only diseases with high prevalence and secondly, some diseases were too complicated for new dental graduates.

Comments from dental practitioners were, firstly, differential diagnosis of oral cancers should be stressed in the undergraduate curriculum and secondly, new dental graduates should be able to appropriately prescribe drugs for the treatment of oral lesions.

Item 12.2: Recognize the need for limited soft tissue surgery, including biopsy, and manage appropriately

Dental practitioners agreed that this competency should have been attained but it was better to refer patients to oral surgeon for biopsy.

Domain 4: Restoration of Form, Function and Esthetics

Two major competencies are concerned, restoration of teeth (Restorative therapy) and replacement of teeth (Prosthetic therapy).

4.2.13 RESTORATIVE THERAPY

The first major competency: restorative therapy consists of 11 minor competency statements.

4.2.13.1 RESULT OF THE RATING SCALE

The means \pm SD of the rating scales rated for the 11 competency statements ranged from 2.93 ± 1.22 to 5.00 ± 0.00 by the Faculty staffs and

3.24 \pm 1.14 to 4.90 \pm 0.34 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according to the ranked order of the rating scales. Table 4.21 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed: moderately agreed were 7:0:4 statements from the Faculty staffs and 7:3:1 statements from the dental practitioners.

The competency statements that were rated as mostly agreed, by both Faculty staffs and dental practitioners included: Item 13.1, Item 13.2, Item 13.3, Item 13.4, Item 13.5.1, Item 13.5.2 and Item 13.5.3.

The competency statement that was rated as moderately agreed by both groups was Item 13.5.4.

For the faculty staffs,

- Item 13.5.2 was rated with the highest mean (5.00) and the standard deviation (0.00)
- Item 13.5.5 was rated with the lowest mean (2.93) and the largest standard deviation (1.22).

For the dental practitioners,

- Item 13.5.1 was rated with the highest mean (4.90) and the smallest standard deviation (0.34)
- Item 13.5.4 was rated with the lowest mean (3.24) and the largest standard deviation (1.14)

Table 4.21 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Restorative Therapy

Competency statements in brief	Faculty staffs										Dental Practitioners					
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
13.1 Isolate teeth from contamination	15	13 (86.7%)	2 (13.3%)	-	-	-	4.87	0.35	147	112 (76.2%)	28 (19.0%)	7 (4.8%)	-	-	4.71	0.55
13.2 Remove carious tooth structure	15	14 (93.9%)	1 (6.7%)	-	-	-	4.93	0.26	147	132 (89.9%)	13 (8.8%)	2 (1.4%)	-	-	4.88	0.36
13.3 Create biomechanical sound tooth preparation	15	13 (86.7%)	1 (6.7%)	1 (6.7%)	-	-	4.80	0.56	147	130 (88.4%)	13 (8.8%)	4 (2.7%)	-	-	4.86	0.42
13.4 Select and manipulate restorative materials	15	13 (86.7%)	2 (13.3%)	-	-	-	4.87	0.35	147	121 (82.3%)	24 (16.3%)	2 (1.4%)	-	-	4.81	0.43
13.5.1 Restore uncomplicated teeth with amalgam	15	14 (93.3%)	1 (6.7%)	-	-	-	4.93	0.26	147	135 (91.8%)	10 (6.8%)	2 (1.4%)	-	-	4.90	0.34
13.5.2 Restore uncomplicated teeth with composite resin	15	15 (100.0%)	-	-	-	-	5.00	0.00	147	131 (89.1%)	13 (8.8%)	3 (2.0%)	-	-	4.87	0.39
13.5.3 Restore uncomplicated teeth with glass ionomer	15	13 (86.7%)	2 (13.3%)	-	-	-	4.87	0.35	147	119 (81.0%)	18 (12.2%)	9 (6.1%)	1 (0.7%)	-	4.73	0.60
13.5.4 Restore uncomplicated teeth with cast gold alloy	15	2 (13.3%)	2 (13.3%)	5 (33.3%)	6 (40.0%)	-	3.00	1.07	147	24 (16.6%)	23 (22.4%)	56 (38.1%)	22 (15.0%)	12 (8.2%)	3.24	1.14
13.5.5 Restore uncomplicated teeth with composite veneer	15	2 (13.3%)	3 (20.0%)	3 (20.0%)	1 (6.7%)	-	2.93	1.22	147	35 (23.8%)	42 (28.6%)	49 (33.3%)	11 (7.5%)	10 (6.8%)	3.55	1.14
13.6 Explain & discuss restorations for cosmetic Dental treatment	15	2 (13.3%)	7 (46.7%)	3 (20.0%)	1 (6.7%)	-	3.47	1.13	147	64 (43.5%)	54 (36.7%)	27 (18.4%)	2 (1.4%)	-	4.22	0.79
13.7 Explain & discuss vital bleaching	15	2 (13.3%)	7 (46.7%)	3 (20.0%)	2 (13.3%)	1 (6.7%)	3.47	1.13	147	51 (34.7%)	56 (38.1%)	33 (22.4%)	7 (4.8%)	-	4.03	0.88

There were relatively agreement in opinions, between the faculty staffs and the general practitioners, except for the last 3 items. Although none of the items received difference mean between both groups for more than 1.0, there were relatively higher agreement among general practitioners compared with faculty staffs for the last 3 items. The largest mean difference was 0.75 from item 13.6.

4.2.13.2 RESULT FROM THE OPEN-ENDED PART

Item 13.1: Isolate the tooth/teeth from salivary moisture and bacterial contamination

Faculty staffs agreed that new dental graduates should obtain this competency but admitted that rubber dam was not used in every case.

Item 13.2: Remove carious tooth structure in preparation for restoration

Faculty staffs felt that new dental graduates might not be able to do this competency perfectly in cases with deep caries.

Item 13.3: Create biomechanical sound tooth preparations and recognize the importance of the preservation of the pulp, periodontal tissue, and others soft tissues of the oral cavity while performing all types of restoration

Faculty staffs stated that new dental graduates should be able to do this competency if they strictly followed the principles.

Item 13.4: Select and manipulate restorative materials to create restorations, which are anatomical, functional, and esthetic

Faculty staffs assured that this competency should be done if new dental graduates chose the right methods and had good control of the environment.

Dental practitioners felt that new dental graduates could develop their dexterity of this competency after graduation.

Item 13.5.1: Restore uncomplicated teeth with amalgam

Dental practitioners stated that new dental graduates should be able to check overhanging filling as well.

Item 13.5.2: Restore uncomplicated teeth with composite resin

Faculty staffs mentioned that this competency should not cover difficult cases such as class two cavities in posterior teeth.

Dental practitioners considered that in order to obtain this competency, the dental school should emphasize on students' ability to choose appropriate materials and techniques for each cavity.

Item 13.5.3: Restore uncomplicated teeth with glass ionomer

Dental practitioners mentioned that for long-live glass ionomer filling, new dental graduates should also be able to do good preparation.

Item 13.5.4: Restore uncomplicated teeth with cast gold alloy

This statement yielded various opinions.

Some faculty staffs agreed that new dental graduates should be able to restore uncomplicated teeth with cast gold alloy if they had enough interest to develop the skills. Others felt that this competency should be taught at the post-graduate level.

Some dental practitioners stated that not many patients could afford this kind of treatment. Some thought that the dental school should emphasize practicing not only in the laboratory but also in the clinic. Some felt that it should be taught at the post-graduate level. Another considered this competency as a high precision technique and should better be referred to specialists.

Item 13.5.5: Restore uncomplicated teeth with composite veneer

One faculty staff stated that this should be taught at the postgraduate level. Some thought new dental graduates should be able to do so if they had good knowledge and were interested.

Some dental practitioners felt that this competency should be taught at the post-graduate level. One stated that cases were rare. Others mentioned that dental schools should emphasize more on clinical practice experiences.

Item 13.6: Explain and discuss the application of restorative materials and techniques for cosmetic dental treatment

Faculty staffs felt that new dental graduates should be able to do this at a certain level.

Dental practitioners considered that new dental graduates should be able to do some cosmetic dental treatment such as diastema closure.

Item 13.7: Explain and discuss the theory and application of vital bleaching to achieve improved esthetics

Faculty staffs stated that new dental graduates should also be able to do vital bleaching by following the instruction.

Dental practitioners stated that this competency was necessary because many patients would like to have this kind of treatment. Others preferred clinical practice experiences at the undergraduate level. Some, however, did not agree and considered the treatment as transient success.

4.2.14 REPLACEMENT OF THE TEETH

The second major competency in this domain consists of 17 minor competency statements.

4.2.14.1 RESULT OF THE RATING SCALE

The means \pm SD of the rating scales rated for the 17 competency statements ranged from 3.17 ± 1.10 to 4.94 ± 0.24 by the Faculty staffs and 3.56 ± 1.05 to 4.79 ± 0.47 by the dental practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are presented in Table 4.8 according the ranked order of the rating scales. Table 4.22 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed: moderately agreed were 13:3:1 by the Faculty staffs and 12:5:0 by the dental practitioners.

There were 11 competency statements that were rated as mostly agreed, by both Faculty staffs and dental practitioners. The statements included: Item 14.1, Item 14.2, Item 14.3, Item 14.4, Item 14.5, Item 14.6, Item 14.8, Item 14.9, Item 14.12, Item 14.13 and Item 14.15.

Table 4.22 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Prosthodontic Therapy

Competency statements in brief	Faculty staffs										Dental Practitioners					
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
14.1 Establish treatment plan for prosthodontics Patients	18	14 (77.8%)	4 (22.2%)	-	-	-	4.78	0.43	147	98 (66.7%)	39 (26.5%)	8 (5.4%)	2 (1.4%)	-	4.59	0.66
14.2 Evaluate and select abutment teeth	18	13 (72.2%)	5 (27.8%)	-	-	-	4.72	0.46	147	102 (69.4%)	34 (23.1%)	10 (6.8%)	1 (0.7%)	-	4.61	0.65
14.3 Identify and manage conditions that preclude satisfactory prostheses	18	12 (66.7%)	6 (33.3%)	-	-	-	4.67	0.49	147	87 (59.2%)	47 (32.0%)	13 (8.8%)	-	-	4.50	0.66
14.4 Create biomechanical sound tooth preparations	18	14 (77.8%)	4 (22.2%)	-	-	-	4.78	0.43	147	97 (66.0%)	41 (27.9%)	9 (6.1%)	-	-	4.60	0.60
14.5 Make accurate impressions	18	14 (77.8%)	4 (22.2%)	-	-	-	4.78	0.43	147	116 (78.9%)	25 (17.0%)	6 (4.1%)	-	-	4.75	0.52
14.6 Fabricate sound provisional prostheses	18	15 (83.3%)	3 (16.7%)	-	-	-	4.83	0.38	147	103 (70.0%)	37 (25.2%)	7 (4.8%)	-	-	4.65	0.57
14.7 Obtain working casts	18	9 (50.0%)	5 (27.8%)	4 (22.2%)	-	-	4.28	0.83	147	47 (32.0%)	52 (35.4%)	39 (26.5%)	9 (6.1%)	-	3.93	0.91
14.8 Select appropriate shade for prostheses	18	11 (61.1%)	5 (27.8%)	2 (11.1%)	-	-	4.50	0.71	147	106 (72.1%)	34 (23.1%)	7 (4.8%)	-	-	4.67	0.56
14.9 Direct laboratory fabrication of prostheses	18	11 (61.1%)	6 (33.3%)	1 (5.6%)	-	-	4.56	0.62	147	98 (66.7%)	42 (28.6%)	7 (4.8%)	-	-	4.62	0.58
14.10 Select and arrange artificial teeth	18	11 (61.1%)	7 (38.9%)	-	-	-	4.61	0.50	147	83 (56.5%)	46 (31.3%)	13 (8.8%)	4 (2.7%)	1 (0.7%)	4.40	0.82
14.11 Evaluate and modify prostheses	18	8 (44.4%)	10 (55.6%)	-	-	-	4.44	0.51	147	92 (62.6%)	46 (31.3%)	9 (6.1%)	-	-	4.56	0.61

Table 4.22 (Continued) Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Prosthodontic Therapy

Competency statements in brief	Faculty staffs						Dental Practitioners									
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
14.12 Select and manipulate appropriate luting medium	18	14 (77.8%)	4 (22.2%)	-	-	-	4.78	0.43	147	99 (67.3%)	39 (26.5%)	8 (5.4%)	1 (0.7%)	-	4.61	0.63
14.13 Provide prostheses that are in good form; Function and esthetics	18	12 (66.7%)	6 (33.3%)	-	-	-	4.67	0.49	147	90 (61.2%)	44 (29.9%)	11 (7.5%)	2 (1.4%)	-	4.51	0.70
14.14 Reline and repair removable prostheses	18	13 (72.2%)	5 (27.8%)	-	-	-	4.72	0.46	147	85 (57.8%)	45 (30.6%)	16 (10.9%)	1 (0.7%)	-	4.46	0.71
14.15 Educate patient on maintenance of prostheses	18	17 (94.4%)	1 (5.6%)	-	-	-	4.91	0.24	147	120 (81.6%)	23 (15.6%)	4 (2.7%)	-	-	4.79	0.47
14.16 Explain & discuss endosseous implants	18	4 (22.2%)	3 (16.7%)	9 (50.0%)	2 (11.1%)	-	3.50	0.99	147	31 (21.1%)	47 (32.0%)	49 (33.3%)	14 (9.5%)	6 (4.1%)	3.56	1.05
14.17 Explain & discuss oral rehabilitation	18	3 (16.7%)	2 (11.1%)	9 (50.0%)	3 (16.7%)	1 (5.6%)	3.17	1.10	146	31 (21.2%)	47 (32.2%)	48 (32.9%)	17 (11.6%)	3 (2.1%)	3.59	1.01

For the faculty staffs,

- Item 14.15 was rated with the highest mean (4.94) and the smallest standard deviation (0.24)
- Item 14.17 was rated with the lowest mean (3.17) and the largest standard deviation (1.10).

For the dental practitioners,

- Item 14.15 was rated with the highest mean (4.79) and the smallest standard deviation (0.47)
- Item 14.16 was rated with the lowest mean (3.56) and the largest standard deviation (1.05).

There were relatively agreement between faculty staffs and dental practitioners. The largest mean difference was 0.42 for item 14.17.

4.2.14.2 RESULT FROM THE OPEN-ENDED PART

Item 14.1: Establish a treatment plan and prognosis for uncomplicated fixed and removable prosthodontics patients

Faculty staffs considered “uncomplicated cases” as only simple cases. Some thought that the graduates’ ability would depend on cases they had experienced. Faculty staffs who were consultants also had influence on the graduates’ competency. Seminars should be emphasized such that students could share their opinions.

Dental practitioners stressed the importance of this competency as it had influence on the success of the treatment. Some considered this competency to be quite difficult for new dental graduates who had little experiences.

Item 14.2: Evaluate and select appropriate abutment teeth for fixed and removable prostheses.

Faculty staffs felt that new dental graduates could not achieve this competency due to lack of experiences.

Item 14.3: Identify anatomic and inflammatory conditions that preclude satisfactory of removable partial or complete denture prostheses, and treat or refer the patient for the treatment of these

Faculty staffs felt that new dental graduates could not achieve this competency due to lack of experiences.

Item 14.6: Fabricate and place biomechanical sound provisional prostheses that are anatomical, functional and esthetic

Dental practitioners felt that talent and practice were factors that influenced the ability of a person to fabricate provisional prostheses that were anatomical and esthetic. Other said this competency should be emphasized because patients in the northeast who were quite poor often use this type of prostheses instead of permanent ones.

Item 14.7: Obtain working casts and mount them on a semi-adjustable articulator using a face-bow transfer, and inter-occlusal records

Faculty staffs felt that new dental graduates might not be able to do this accurately. The problem was that even some faculty staffs did not use this method in real practice; so they would not have ability to teach their students specifically.

Dental practitioners, although agreed about this, complained about lacking of equipments.

Item 14.8: Select an appropriate shade for the prosthesis

Dental practitioners felt that the shade selected should also be based upon the patients' needs.

Item 14.10: Select and arrange artificial teeth to meet the esthetic needs of the patients and the requirements of clinical conditions

All dental practitioners who commented stated that in real practice, commercial laboratories did the jobs. New dental graduates did not have to have this competency but should be able to check and correct the work.

Item 14.13: Provide patients with fixed and/or removable partial or full dentures, restoring them to form, function and esthetics

Dental practitioners mentioned that patients in the rural area did not usually get fixed prostheses because they could not afford them. There were a lot of patients with full denture because they had privileges or could reimburse their expenses.

Item 14.14: Reline and repair removable partial and complete dentures

Dental practitioners mentioned that commercial labs could do this work.

Item 14.15: Educate and instruct the patient on post-insertion care and maintenance of prostheses

Dental practitioners stressed the importance of this competency and emphasized that dentists should also educate and instruct the patients on oral health care prior to starting the treatment.

Item 14.16: Explain and discuss the theory and application of endosseous implants with regard to form, function, and esthetics

Faculty staffs stated that in the present curriculum, undergraduates learned very little about endosseous implants. One thought this should be taught at the post-graduate level. Another stated that cases should be referred to specialists.

Dental practitioners mentioned that the dental school should put more content in the undergraduate curriculum.

Item 14.17: Explain and discuss the theory and application of oral rehabilitation

Faculty staffs felt that this should be taught at the post-graduate level. One stated that cases should be referred to specialists. Another mentioned that this subject was not taught in the present curriculum.

Dental practitioners mentioned that the dental school should put more content in the undergraduate curriculum.

4.2.15 COMMUNITY INVOLVEMENT

The last domain, community dentistry, consists of one major competency: community involvement, which was consisted of 7 competency statements.

4.2.15.1 RESULT OF THE RATING SCALE

The means \pm SD of the rating scales rated for the 7 competency statements ranged from 3.50 ± 0.58 to 4.25 ± 0.50 by the Faculty staffs and 3.95 ± 0.93 to 4.48 ± 0.75 by the general practitioners. The means \pm SD of the rating scales rated for all statements in this major competency are

presented in Table 4.8 according the ranked order of the rating scales. Table 4.23 presents the frequencies, means \pm SD of the rating scales rated for all statements in this major competency according to chronological order of the competency statements in the questionnaire.

The competency statements that were rated as mostly agreed: agreed: moderately agreed were 0:7:0 statements by both Faculty staffs and dental practitioners.

For the faculty staffs,

Item 15.1 was rated with the highest mean (4.25) and the smallest standard deviation (0.50).

Item 15.6 and Item 15.7 were rated with the lowest mean (3.50) and largest standard deviation (0.58).

For the dental practitioners,

Item 15.1: got similar result to the result of Faculty staffs and Item 15.2 were rated with the highest mean (4.48)

Item 15.1: was rated with the smallest standard deviation (0.72)

Item 15.4: was rated with the lowest mean (3.95).

Item 15.6: was rated with the largest standard deviation (0.94)

Although none of the items had mean difference between both groups for more than 1.0, there were relatively slightly higher agreement among dental practitioners compared with faculty staffs in all items. Both faculty staffs and dental practitioners agreed with all items regarding this competency.

Table 4.23 Frequencies, Means \pm SD of the rating scale given to the statements in major competency : Community Involvement

Competency statements in brief	Faculty staffs						Dental Practitioners									
	N	Frequency (%)					Mean	SD	N	Frequency (%)					Mean	SD
		5	4	3	2	1				5	4	3	2	1		
15.1 Explain & discuss role of dental profession	4	1 (25.0%)	3 (75.0%)	-	-	-	4.25	0.50	147	90 (61.2%)	39 (26.5%)	17 (11.6%)	1 (0.7%)	-	4.48	0.75
15.2 Explain & discuss current dental care system	4	-	4 (100.0%)	-	-	-	4.00	0.00	147	87 (59.2%)	45 (30.6%)	14 (9.5%)	1 (0.7%)	-	4.48	0.72
15.3 Explain & discuss current epidemiological trends of oral diseases	4	-	3 (75.0%)	1 (25.0%)	-	-	3.75	0.50	147	73 (49.7%)	45 (30.6%)	27 (18.4%)	1 (0.7%)	1 (0.7%)	4.28	0.83
15.4 Explain & discuss research methodologies related to oral health	4	-	3 (75.0%)	1 (25.0%)	-	-	3.75	0.50	147	49 (33.3%)	52 (35.4%)	37 (25.2%)	8 (5.4%)	1 (0.7%)	3.95	0.93
15.4 Explain & discuss effectiveness of community based programs	4	-	3 (75.0%)	1 (25.0%)	-	-	3.75	0.50	147	57 (38.8%)	55 (37.4%)	28 (19.0%)	7 (4.8%)	-	4.10	0.87
15.6 Explain & discuss current trends in the provision and financing of health care	4	-	2 (50.0%)	2 (50.0%)	-	-	3.50	0.58	147	49 (33.3%)	55 (37.4%)	32 (21.8%)	10 (6.8%)	1 (0.7%)	3.96	0.94
15.7 Understand the need and select appropriate dental care	4	-	2 (50.0%)	2 (50.0%)	-	-	3.50	0.58	147	64 (43.5%)	46 (31.3%)	31 (21.1%)	4 (2.7%)	2 (1.4%)	4.13	0.93

4.2.15.2 RESULTS FROM THE OPEN-ENDED PART

None of the Faculty staffs gave additional opinions on the competency statements.

Item 15.1: Explain and discuss the role of dental profession in the community setting

One dental practitioner questioned the exact role of dental profession because dentists mostly treated. Another felt new dental graduates should be expand their roles in the communities setting and that meant not just explain and discuss.

Item 15.2: Explain and discuss the characteristics of current dental care delivery systems

Dental practitioners felt the professional did not have any obvious community dental care system.

Item 15.3: Explain and discuss current epidemiological trends of oral diseases

Dental practitioners questioned with whom new dental graduates could discuss.

Item 15.5: Explain and discuss the effectiveness, efficiency, practicality, and economic feasibility of community based preventive programs

Dental practitioners felt the competency was too difficult for new dental graduates. Some thought new dental graduates should also be able to launch preventive programs, and some agreed that preventive programs are good strategies.

Item 15.6: Explain and discuss current trends in the provision and financing of oral health care

Dental practitioners felt this competency was too difficult for new dental graduates while other thought they should be able to manage this.

Item 15.7: Understand the need and select the dental care appropriate to a variety of settings

Dental practitioners thought it was too difficult. Another felt that the community should also have a role in the dental care as well.

4.3 RESULT FROM THE OPEN-ENDED PART THAT WAS PROVIDED FOR FURTHER OPINIONS

There were 20 additional comments from the faculty staffs and 35 additional opinions from the dental practitioners. Comments can be grouped into 4 topics.

The first topic is about the questionnaire. Comments that were made include:

- The questionnaire is too long
- The questionnaire has too many details
- Competency statements of pediatric dentistry were not provided for

consideration

- The questionnaire probably used forced choice scale. One who likes to avoid giving opinion or thinking about it will always choose middle scale.

- A faculty staff mentioned that, as a specialist working in a department, she did not know the present curriculums of other departments, which made it difficult for her to give opinions.

- A dental practitioner felt this questionnaire forced her to most agreed with all items. As dental graduates, she added, the more the dental school provides knowledge, the more competent they would feel.

- The results from this questionnaire would benefit the dental school if the dental school brought them into consideration when it reforms the curriculum.

The second group of opinions discuss about other competencies not appeared in the questionnaire.

The competencies: Ethics is most concerned. Many comments were made. Many faculty staffs and dental practitioners felt that the dental school should really emphasize ethical issues in the curriculum. Below are the opinions given which concerned about ethics:

- New dental graduates should possess high personal and professional integrity.

- They must provide humane and compassionate care to all patients without discrimination.

- They must have good attitudes in serving others and societies.

- They should take high responsibility of their works and should know when to refer the patient.

- They should enjoy the benefits of the others more than of themselves.

- They must be honest

- The action taken and decisions made should always be in the patient's best interest

The competency: communication skills and interpersonal skills are skills, which some faculty staffs and dental practitioners concerned.

Comments were:

- New dental graduates should be able to communicate effectively with their patients and with other health professionals involved in their patient's care

- New dental graduates should be able to communicate professional knowledge clearly to their patients

- The psychological principles and techniques to manage patients should be taught.

- New dental graduates should respect other people's opinions and should properly express their disagreements.

- New dental graduates should be able to properly managed disagreements.

- New dental graduates should be able to address the public and motivate audiences.

The competency: self-directed learning ability is another concerned. In the present rapidly changed world, large and diverse information will be gathered in every day life. New dental graduates therefore should be able to obtain and process information in a critical, scientific and effective manner. Self-directed learning ability should be taught in the dental school.

The competency: teamwork has been considered as a necessary skill that should be trained. New dental graduates should be a part of the health

personal team. They should be able to work happily with others and work as members of teams.

Decision-making and problem solving ability is another competency recommended.

New dental graduates should be able to take the responsibility in hospital administration. They should be able to develop goals and plans, to cooperate with others who are involved, and to evaluate and control their outcomes.

New dental graduates should have more knowledge in the medical field.

New dental graduates should understand about laws and taxes involved in their career because more and more legal problems occurred with sue incidents and tax system.

The third group of opinions discussed about the curriculums they had experienced.

Comments that were made included:

- Community dentistry:

- Too many credits

- The contents given in the course did not emphasize important points

- The contents given are not very realistic. They cannot be used directly in real life practice.

- What is done in real life practice should be trained in the undergraduate curriculum. The department should learn from the community.

- Prevention and promotion of oral health of the community (rather than of individuals) should be emphasized.

- Prosthodontics

- Too many credits
- Too much have been emphasized on laboratory works.

- Pharmacology

- The contents given were not clear
- The contents given could not be used directly in real life practice

- Orthodontics

- Lecturers do not want to give much knowledge
- Only theories were given, very little training were provided
- No cases for undergraduates to practice
- Nothing in term of treatment can be provided for patients
- For the undergraduate curriculum, the department should emphasize on preventive orthodontics.

- Occlusion

- Students could not understand the subjects
- As a practitioner, he/she could not explain or discuss this topics with patients
- As a practitioner, he/she was not sure in providing treatments
- As a practitioner, he/she could not provide treatments for temporomandibular joint problems

- Endodontic Therapy

- Needs for endo-molar of the patients are high

- Undergraduates should be trained to be able to do uncomplicated endo-molar. If it is not possible to practice in real patients, training by using models should be taken into consideration.

- Emergency Situation

- Undergraduates have rare chances to be trained in real emergency situations in the dental school. This is because the low incidence of patients. The new dental graduates should, therefore, have excellent knowledge in this field to be able to apply in real practice.

- Since training experiences and assessment of this competency are not provided in the undergraduate curriculum, new dental graduates should use their knowledge to gain the competency in real practice.

- Other comments

- Orientation to the profession should be emphasized from the beginning of the undergraduate's curriculum. The students should be aware of the roles of the professional in the society so that they would realize their future and prepared themselves well in the undergraduate curriculum.

- The dental school should try to provide all the competencies needed for new dental graduates to succeed in real life practice. There are not enough opportunities for graduates to further their studies and the needs for dental treatments of patients are high.

- The teaching and learning strategies to integrate various subjects in the dental school are low. Students cannot integrate their basic science or pre-clinical knowledge with clinical subjects well.

- There are elements that were taught in the undergraduate curriculum that have not been used since graduation. One said, less than 30%

are used. Furthermore she felt that her competencies are inferior to dental therapists and medical knowledge is less than one-tenth of the physicians.

- There should be more short courses for continuing education provided. There are reasons for the demand. First is to supplement what could not be covered in the undergraduate curriculum. Second is to supplement the needs of general practitioner who could not have postgraduate training. Third is patients need good treatments.

- One of the reasons that make discrepancy between what dental students are taught and what they actually do in practice is the lack of necessary equipments such as semi-adjustable articulators, face bows, especially in community hospitals.

The last group of opinions gathers recommendations for improvement of the curriculum. Recommendations include:

The dental school should gather more information from the stakeholders especially the needs of the patients and take into consideration.

The competencies not included in this questionnaire should be established.

The competency statements should be stated in precise terms and include performance and range criteria to indicate exactly what dental graduates could do in real practice.

The dental school should have a special unit working under the department of academic affairs. The function of this unit is to systematically improve and develop the curriculum. Minor changes should be done every year while major changes should be done every five years. Data and information used should be systematically gather from various sources such as

current Thai dental curricula, current international dental curricula, and data from current Thai demographic and society.

The dental school must seriously develop strategies to solve the problem of insufficient number of patients for undergraduates to practice. Diverse teaching and learning models should be developed to supplement undergraduates practice experiences.

Continuing education workshops and postgraduate training are strategies to overcome deficient competencies. They are not sufficient to cover the needs of general practitioners.



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