



Copyright © 2015 by KAD International  
All rights reserved.  
Published in the Ghana

<http://kadint.net/our-journal.html>

RESEARCH ARTICLE



## **Self-Concept and Variables Related to Preparedness for Dental Practice: Basis for a Proposed Program Enhancement**

<sup>1</sup>Aleriza Marya L. Trias

<sup>2</sup>Pearly P. Lim

<sup>1</sup>Centro Escolar University, Philippines  
9 Mendiola St., San Miguel, Manila, 7356861 local 214  
D.M.D., M.S., Assistant Professor, School of Dentistry  
E-mail: amltrias@gmail.com

<sup>2</sup>Centro Escolar University, Philippines  
2nd Floor Dent-Sci Bldg., 9 Mendiola St., San Miguel, Manila, 7356861 local 214  
D.M.D., M.A.T., M.S.D.E., Ph.D., Acting Dean, School of Dentistry  
E-mail: docpearlyceu@yahoo.com

### **Abstract**

The aim of this study is to obtain information about graduating students' self-concept and variables related to preparedness for dental practice. A self-constructed questionnaire which was first validated by 26 administrators, selected faculty and students of the School of Dentistry of Centro Escolar University, Manila, were personally given to the graduating students. The respondents were the 198 graduating students for March 2014. Foreign students were also included in the study. Using a 5-point Likert scale, the questionnaire assessed the self-concept and variables related to preparedness for dental practice self-perceived preparedness. Statistical tools that were used for the study are percentage, frequency, standard deviation, weighted mean, t-test and analysis of variance. The data gathered were interpreted as very large extent, large extent, moderate extent, little extent, very little extent. Based on the findings of the study, most of the graduating students see themselves prepared to a large extent for dental practice. However, the clinical infirmary ranked the lowest in its group with number of module units available, safety, cleanliness and orderliness of the infirmary and modernity of equipment giving the results of to a moderate extent. Moreover, the lack of training dental emergencies as well as Orthodontics and Periodontics will need to be addressed by program enhancements such as additional hours in subjects, workshops and seminars.

**Keywords:** Dental Education; Dental Practice; Graduating Students; Program Enhancement; Self-Concept.

### **Introduction**

"The clinic is the learning environment to which all our students aspire" [1]. It is the place where future dentists are moulded. It is the venue where students experience things, gain interests and adapt principles. The learning environment and the students therefore play a big role in attaining the mission and vision of a learning institution. Both factors are interdependent and affect assessment of an educational system. Preparing a professional dentist entails a lot of responsibilities. Pierre Fauchard developed dentistry as an independent profession from medicine

[2]. To keep up with the demands in skills and knowledge of being a professional dentist, a study on the graduating students' self-concept and variables related to preparedness for dental practice can help the University prepare its students to face the demands of being a dentist. Learning and teaching are two entities that constitute success. Vittitow, in his honors thesis entitled "Empowering the World Through Dentistry," said that Dentistry is a very specific trade that one develops after years of education and training [3]. The challenge for dental schools worldwide has been to design and implement clinical curriculum models in which patient-centered, comprehensive care is the norm, and, at the same time, ensure that each student has an appropriate mix of 2 patient care experiences that are part of general practice [4]. A responsible dentist in order to be successful should be able to strike a balance between its humanitarian and economic motives. As in any discipline, focus on preparation of the students to face the future and to be able to carry on with the demands and responsibilities of the chosen profession has been the primary goal of institutions worldwide. The dental workforce is an important healthcare resource. It is therefore important to understand the views and career expectations of new entrants to the dental profession to protect and develop this resource [5].

The learning environment of a student is important. Educators should take into consideration the environment and the needs of the learning student. In a 2009 ADEA survey conducted in the United States of America, 38 percent of the responding seniors reported feeling underprepared for practice administration [6]. Dhima also found in her study that factors such as inadequate exposure of students to a dental specialty, lack of faculty numbers or mentors in a specialized field who are available to work with the students, and lack of opportunities for students to treat patients who require care in those specialties can affect ones career [7].

Over the past decades, the field of dentistry has come up with countless innovations. As with innovations, some things are left behind. With the development of newer materials and advanced techniques, the learning process has to be dynamic, which has to be catered for in the teaching curricula for the students to stay current with the latest in the world [8]. In a 2013 study, European students' self-assessment of their own proficiency serve as a helpful means to make a realistic evaluation of dental curricula and the assessment of the effectiveness of specific courses [9]. The data gathered by the researcher were used a basis for program enhancement in the School of Dentistry of Centro Escolar University. In this study, the researcher tried to assess the self-concept and variables related to the preparedness for dental practice of graduating students of Centro Escolar University, Manila.

### **Methods**

The descriptive survey method was used in conducting the study. Survey as a technique of descriptive research method is a fact-finding study with adequate and accurate interpretation. The respondents of the study were the prospective graduating Dentistry students of March 2014 of Centro Escolar University Manila. Out of the 198 respondents, 115 were female and 88 were male. A central element in survey research is the questionnaire used as an instrument to gather information. Part I dealt with the demographic profile of the patient that includes age, gender, years in college, nationality and type of intended practice. Part II dealt with the self-concept of preparedness for dental practice of graduating students of Centro Escolar University, Manila. A self-constructed questionnaire was used for the study. The second part required the graduating students to rate the variables related to preparedness for dental practice using the scale 5 (VLE) = Very large extent, 4 (LE) = Large extent, 3 (ME) = Moderate extent, 2 (SE) = Small extent, 1 (VSE) = Very small extent.

The researcher requested 6 experts to validate the questionnaire. They were administrators and faculty of the School of Dentistry, an English teacher, a curriculum and supervision teacher in graduate school, an expert in education and a psychologist. Furthermore, the researcher conducted a test on the validity of the instrument used. A dry-run was done by 20 graduating dental students. Selected graduating students who validated the questionnaires were not included in the study. The researcher asked the respondents for their feedback in answering the questions. The researcher then improved the questionnaire based on the respondents' suggestions.

The researcher sought the permission of the Dean of the School of Dentistry, Centro Escolar University, Dean Maria Jona D. Godoy to conduct a study in the school. The researcher also wrote a letter to the Dr. Rhoda C. Aguilar to request for the number of graduating dental students.

After which, a cover letter was prepared for distribution to the respondents to avail them of the official information explained in the study. The researcher personally administered the questionnaire to the respondents and gave them sufficient time to answer the questionnaire. The data were treated in relation to what was asked in the specific objectives. For the purpose of analyses, percentage and frequency values were used on the demographic profile of the respondents - age, gender, years in college, nationality and type of intended practice. To determine the self-concept and variables related to preparedness for dental practice of graduating students of Centro Escolar University, Manila, the researcher used the weighted mean, which is one of the commonly used measures of central location and standard deviation. In comparing the self-concept and variables related to preparedness for dental practice of graduating students when grouped according to age, years in college and nationality, analysis of variance was used. The t-test was used for gender and for the type of intended dental practice.

### Results

It is apparent from Table 1 that the respondents are prepared to a large extent in terms of Quality Oral Health Care and Patient Education except in "providing emergency dental services." It ranked the lowest with a mean of 3.41. "Develop and explain treatment plan to the patient" ranked the highest with a mean of 4.06. The obtained standard deviation shows that the respondents are heterogeneous in their self-concept for each of the particulars pertaining to Quality Oral Health Care.

**Table 1: Self-Concept of the Graduating Students' Preparedness Regarding Their Dental Practice in Terms of Quality Oral Health Care and Patient Education**

<b>Quality Oral Health Care and Patient Education</b>	<b>Mean</b>	<b>S.D.</b>	<b>Verbal Interpretation</b>
<i>1. Obtain a comprehensive and concise case history</i>	3.88	.726	<i>Large Extent</i>
<i>2. Obtain and interprets diagnostic information</i>	3.85	.629	<i>Large Extent</i>
<i>3. Maintain records of patient</i>	3.97	.754	<i>Large Extent</i>
<i>4. Develop and explain treatment plan to the patient</i>	4.06	.816	<i>Large Extent</i>
<i>5. Perform appropriate clinical procedures</i>	3.98	.746	<i>Large Extent</i>
<i>6. Provide oral and preventive care</i>	3.89	.836	<i>Large Extent</i>
<i>7. Provide emergency dental services</i>	3.41	.955	<i>Moderate Extent</i>
<i>8. Implement and monitor infection control and environmental safety</i>	3.88	.884	<i>Large Extent</i>
<i>9. Gives chair-side and post-operative instruction to the patient</i>	3.96	.818	<i>Large Extent</i>
<i>10. Recalls patient</i>	3.76	.809	<i>Large Extent</i>
Overall Mean	3.86	.563	Large Extent

From Table 2, the number of module units available, safety, cleanliness and orderliness of the infirmary and modernity of equipment elicited a response of moderate extent from the respondents. It obtained a mean value of 3.12, 3.37 and 3.40 respectively. It can be seen from the table that the highest means are on the qualification of clinical instructors specifically the basic dental teachers with the highest average of 3.87 and the clinical instructors with a mean of 3.84. The quantity of clinical requirements also elicited positive results however the clinical infirmary ranked the lowest with number of module units available, safety, cleanliness and orderliness of the infirmary and modernity of equipment giving the results of moderate extent. The related learning experience has positive implications. Dr. Letty Moss-Salentijn said that "By the time our students do their hospital rotations and their residencies, they realize they have knowledge and preparation that helps them acclimate to medical settings more quickly" [10].

**Table 2: Self-Concept of the Graduating Students' Preparedness with Regard to Related Learning Experiences**

<b>Related Learning Experiences</b>	<b>Mean</b>	<b>S.D.</b>	<b>Verbal Interpretation</b>
<i>1. qualification of basic medical teachers</i>	3.78	.832	<i>Large Extent</i>
<i>2. basic dental teacher</i>	3.87	.849	<i>Large Extent</i>
<i>3. pre-clinical teachers</i>	3.79	.813	<i>Large Extent</i>
<i>4. clinical instructors</i>	3.84	.897	<i>Large Extent</i>
Mean of Qualification of Clinical Instructors	3.82	.752	Large Extent
<i>1. number of patient requirements</i>	3.65	1.034	Large Extent
<i>2. number of tyodont requirements</i>	3.73	.883	Large Extent
Mean of Quantity of Clinical Requirements	3.70	.871	Large Extent
<i>1. number of module units available</i>	3.12	1.160	<i>Moderate Extent</i>
<i>2. safety, cleanliness and orderliness of the infirmary</i>	3.37	1.054	<i>Moderate Extent</i>
<i>3. good ventilation</i>	3.50	1.067	<i>Large Extent</i>
<i>4. modernity of equipment</i>	3.40	1.058	<i>Moderate Extent</i>
Mean of Clinical Infirmary	3.34	.920	Moderate Extent
Overall Mean of Related Learning Experience	3.62	.693	Large Extent

What is interesting in this data in Table 3 is that the self-concept of the graduating students' preparedness with regard to curriculum was to a large extent with the exception of the sufficiency of the total number of units to prepare students for dental practice under basic medical subjects which is interpreted as to a moderate extent in Table 3. In the Clinical subjects, Restorative Dentistry ranked first with a mean of 4.02 while Prosthodontics ranked second with a mean of 3.63. On the other hand, Periodontics ranked the lowest with a mean of 3.63 followed by the mean of 3.67 for Orthodontics although its verbal interpretation is still to a large extent. The standard deviation self-concept of the graduating students' preparedness with regard to curriculum is quite similar.

**Table 3: Self-Concept of the Graduating Students' Preparedness with Regard to Curriculum**

<b>Curriculum</b>	<b>Mean</b>	<b>S.D.</b>	<b>Verbal Interpretation</b>
<i>1. Objectives are aligned with the framework of the university mission "Science and Virtue."</i>	3.67	.832	<i>Large Extent</i>
<i>2. The total number of units is sufficient to prepare students for dental practice.</i>	3.43	1.003	<i>Moderate Extent</i>
<i>3. There is a relationship between laboratory activities and lecture concepts</i>	3.82	2.291	<i>Large Extent</i>
<i>4. The objectives are relevant to the needs of the profession.</i>	3.67	.898	<i>Large Extent</i>
<i>5. Instructional materials and other resources enrich classroom instruction.</i>	3.64	.926	<i>Large Extent</i>
<i>6. Varied evaluative techniques like tests, quizzes, recitation, research, group assignments and other innovative techniques are conducted regularly.</i>	3.65	.898	<i>Large Extent</i>
Mean of Basic Medical Subjects	3.65	.844	Large Extent
<i>1. Objectives are aligned with the framework of the university mission "Science and Virtue."</i>	3.61	.855	<i>Large Extent</i>
<i>2. The total number of units is sufficient to prepare students for dental practice.</i>	3.52	.974	<i>Large Extent</i>

3. <i>There is a relationship between laboratory activities and lecture concepts.</i>	3.64	.958	Large Extent
4. <i>The objectives are relevant to the needs of the profession.</i>	3.64	.909	Large Extent
5. <i>Instructional materials and other resources enrich classroom instruction</i>	3.68	.908	Large Extent
6. <i>Varied evaluative techniques like tests, quizzes, recitation, research, group assignments and other innovative techniques are conducted regularly.</i>	3.67	.884	Large Extent
Mean of Basic Dental Subjects	3.63	.766	Large Extent
1. <i>Endodontics</i>	3.72	.993	Large Extent
2. <i>Oral Diagnosis</i>	3.80	.942	Large Extent
3. <i>Oral Surgery</i>	3.76	.966	Large Extent
4. <i>Orthodontics</i>	3.68	.975	Large Extent
5. <i>Pediatric Dentistry</i>	3.75	.957	Large Extent
6. <i>Periodontics</i>	3.63	1.016	Large Extent
7. <i>Prosthodontics</i>	3.83	.942	Large Extent
8. <i>Restorative Dentistry</i>	4.02	.825	Large Extent
Mean of Clinical Dentistry	3.77	.766	Large Extent
Overall Mean of Curriculum	3.68	.713	Large Extent

### Discussion

Graduating students of Centro Escolar University perceive themselves as prepared for dental practice. This seems to show that the school is preparing their students to be capable of performing their duties as dentists by the time they graduate. A sizeable amount of students though feel ill-prepared in providing emergency dental care. This is probably a cause for worry and should be addressed in the study school. With regard to their self-concept, for each of the particulars pertaining to quality oral health care, all rated to a “large extent” in their perceived preparedness. This shows a tendency to feel good about themselves and their preparedness and suggests that the school must be doing a good job with their education.

The number of students studying in the institution is very large. Recently, there are renovations being held in the Dentistry building so this may be the reason for their rating of the clinical infirmary wherein clinical infirmary ranked the lowest with number of module units available, safety, cleanliness and orderliness of the infirmary and modernity of equipment giving the results of moderate extent.

The graduating students had the lowest results for Orthodontics and Periodontics. The finding is contrary to the study done in 2004 by Dhima et. al., wherein Prosthodontics is one of the subjects wherein students feel least well prepared for. Although Orthodontics and Periodontics are both fields of specialization, the program may be enhanced by adding additional hours for the subjects as well as conducting workshops during semestral breaks or summer.

Proposed program enhancements for the school are the following:

- Introduce students to the subject Practice Management early in their studies.
- That as students enter basic medical, basic dental and clinical dentistry, the emergencies specific to each subject should be included in the syllabus.
- Before graduation, an enrichment program entitled ‘Enrichment Program on Dental Emergencies’ can be offered.
- Allied Health Workers Day may be implemented.
- Dental “Currency” program can be another option of students of the School of Dentistry to constantly check on current products and find ways and means to be able to bring this to the University.
- Orthodontics and Periodontics Workshop be given.

## Conclusion

Based on the findings of the study, most of the graduating students see themselves prepared for dental practice. The graduating students will generally be good and responsible dentists. However, the current program is lacking in preparing graduating dental students for emergency dental cases. Moreover, the number of module units available, the environment of the clinic and the modernity of the equipment negatively affects the preparedness of graduating students. These areas, although minor, are what the school has to look into considering the amount of students enrolled in Centro Escolar University.

Godoy in her study in 2004 stated that the graduates of CEU College of Dentistry are competent as reflected in their participation in the dental circle of professionals committed to provide quality service [11]. This still holds true up to date. Centro Escolar University is still one of the top performing schools in Dentistry. The findings of this study will further enhance the Dental program of the University so as to produce graduates who are confident, competent and most importantly, capable. As quoted from Hendricson in 2012, "We need to focus on the factors that actually determine the extent and quality of students' learning, and try to use these factors to work toward a perfect intersection of teacher, student, and learning environment" [12].

## References:

1. Russell, D., Fairley, J., McLean, T., Gonsalkorale, S., Hyde, S., Reynolds, G., et al. (2005). *Learning and teaching innovation in the Faculty of Dentistry*. Synergy.
2. Marya, C. (2011). *A textbook of public health dentistry*. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd.
3. Vittitow, C. W. (2012). *Empowering the world through dentistry*. Honors College Capstone Experience/Thesis Projects. Paper 293. Retrieved from: [http://digitalcommons.wku.edu/stu\\_hon\\_theses/](http://digitalcommons.wku.edu/stu_hon_theses/)
4. Arena, G., Kruger, E., Millar, S., & Tennant, M. (2007). Western Australian dental graduates' perception of preparedness to practice: A five-year follow-up. *Journal of Dental Education*, 1217-1222.
5. Gallagher, J. E., Patel, R., & Wilson, N. H. (2009). *The emerging dental workforce: long-term career expectations and influences*. A quantitative study of final year dental students' views on their long-term career from one London Dental School. *BMC Oral Health*, 9:35.
6. Okwuje, I., Anderson, E., & Valachovic, R., (2010). Annual ADEA Survey of dental school seniors: 2009 graduating class. *Journal of Dental Education*, 1025-1026.
7. Dhima, M., Petropoulous, V. C., Han, R. K., Kinnunen, T., & Wright, R. F. (May 1, 2012). Dental students' perceptions of dental specialties and factors influencing specialty and career choices. *Journal of Dental Education*, 76(5), 562-573.
8. Sharma, S., Vijayaraghavan, V. T., Piyush, K., Sharma, H., & Rao, Y. (2012). Dental education: current scenario and future trends. *The Journal of Contemporary Dental Practice*, 107-110.
9. Tanalp, J., Guven, E., & Oktay, I. (2013). Evaluation of dental students' self-perception and self-confidence levels regarding endodontic treatment. *European Journal of Dentistry*, 220-221.
10. Dougherty, M. (2003). *A biochemist who led dental education*. IN VIVO, vol. 2
11. Godoy, M. J. (2004). *Curriculum renewal through impact evaluation: the case of the dentistry curriculum*. Manila: Centro Escolar University.
12. Hendricson, W. D. (2012). Changes in educational methodologies in predoctoral dental education: finding the perfect intersection. *Journal of Dental Education*, 76(1), 118-141