

Perceptions of Indian dental hygiene students toward their profession and its relationship with their explicit self-esteem scores

Shipra Gupta, Ashish Jain, Sakshi Garg¹, Shaveta Sood, Bindya Kumari²

Department of Periodontics, Dr. Harvansh Singh Judge Institute of Dental Sciences and Hospital, Panjab University, Chandigarh,

¹Department of Periodontics, Bhojia Dental College and Hospital, Baddi, Himachal Pradesh, ²Department of Periodontics, Government Dental College and Hospital, Shimla, Himachal Pradesh, India

Abstract

Background: The purpose of this study was to investigate the perceptions toward the profession, the level of explicit self-esteem (ESE) of Indian students pursuing the course of dental hygienists, to evaluate the relationship between the two and to develop educational strategies to positively influence students' perceptions. We also wished to evaluate the level of satisfaction of the students to the current status of professional employment in the country. **Materials and Methods:** Students in the second year of the dental hygienist 2-year course were asked to participate in a cross-sectional survey study. An instrument was used to obtain students' perceptions about the profession by estimating the dimensions of "Motivation," "Expectation" and "Environment." Their self-esteem was evaluated using the Rosenberg self-esteem scale. Relationship of self-esteem scores with perceptions towards profession was then evaluated. **Results:** Scores for dimensions including "Motivation," "Expectation" and "Environment" were significantly high, as were the self-esteem scores. The level of ESE was positively correlated with their perceptions of the profession. **Conclusions:** The perception of the Indian dental hygienist students was significantly high and positively correlated to the ESE scores. We also conclude that environmental factors may be more influential than innate cultural factors for the development of self-esteem.

Key words: Dental hygiene education, perception, profession, self-esteem

INTRODUCTION

Studies regarding perceptions toward a profession have been conducted in nursing and other health care professions.^[1-3] The information obtained through these studies is considered important in evaluating the current status of education. Dental hygienists have to interact with patients on a daily basis. The nature of health care professions is such that it involves a high degree of personal and group interaction. In dentistry, however, information regarding student perceptions of the profession and its influencing factors is scarce. More so in India, there has never been an attempt to evaluate the perceptions of dental hygienists toward their career.

The term "perception" describes how the students view themselves, their environment, ways of thinking and feelings about dentistry, the opportunity to act in clinical and educational situations and, most importantly, their satisfaction and aspiration levels with the profession of their choice.

Human behaviors and perceptions are thought to be influenced by many psychological factors including self-esteem; therefore, the present study explored students' self-esteem. Self-esteem is a positive or negative orientation toward oneself, an overall evaluation of one's worth or value. Rosenberg defined self-esteem as an evaluation that an individual makes and maintains with regard to him or herself.^[4] Self-esteem expresses an attitude of approval or disapproval toward oneself. People with high self-esteem have self respect, consider themselves to be of worth and are proud of their achievements. On

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Address for correspondence:

Dr. Shipra Gupta,
Dr. Harvansh Singh Judge Institute of Dental Sciences and
Hospital, Panjab University, Chandigarh - 160 014, Punjab, India.
E-mail: teena1472@yahoo.in

the contrary, people with low self-esteem tend to lack confidence, are self-critical and consider themselves less worthy and competent than others.^[4]

Self-esteem has been shown to be linked to social anxiety and is therefore related to the fear of negative evaluation.^[5] Greenberg *et al.* found self-esteem to function as a buffer that protected against the negative impact of stress and reduced anxiety.^[6] But, despite its buffering effects, self-esteem has not been sufficiently studied in the domain of dentistry to determine whether or not it acts as a buffer to work-induced stress in the profession. Self-esteem has also been linked, positively, to improved self-perception of clinical competence.^[7] It is also considered the most important personal resource in coping with work-related stress.^[8]

There is little research conducted on dental hygienists in this regard. An attempt was made by Eda^[9] to investigate the relationship between self-esteem and professional identity of Japanese dental hygiene students. He reported that the levels of self-esteem and professional identity of the students increased after clinical rotations. Saito *et al.* also investigated the difference in perception toward profession and self-esteem of Japanese and Canadian dental hygiene students.^[10,11] They concluded that there were significant differences between the two groups, with the Canadian students reporting greater levels of self-esteem than the Japanese students.

However, there is no data for Indian students and it is all the more important because here there is not much of career counseling at the entry level to their career and age of entry of the student to their career is 3–4 years lesser than in the western world. At this age, rational thinking in the students is probably not fully developed owing to less exposure and interactions toward different career options available. Therefore, the chance to get influenced by external pressures and opt for a career that they do not know much about is very high.

The aims of the study were to evaluate:

- The perceptions toward the profession by estimating the dimensions of “Motivation,” “Expectation” and “Environment”
- The level of explicit self-esteem (ESE) by using the Rosenberg self-esteem scale
- The relationship of self-esteem (ESE) with perceptions toward the profession
- To develop educational strategies to positively influence students’ perceptions
- To evaluate the level of satisfaction of the students to the current status of professional employment in the country.

MATERIALS AND METHODS

ESE is a conscious and reflective self-evaluation of a person’s disposition, whereas implicit self-esteem (ISE) entails an evaluation in a spontaneous, automatic or unconscious manner. ESE is a direct measurement of self-esteem and captures the individual’s conscious act of self-judgement, episodic memory for this act or semantic memory for its propositional derivatives. It was hence the test of choice in our study.^[12]

The sample group was a convenience sampling of 50 second year dental hygienists undertaking training and education in two dental hospitals (Government Dental College and Hospital, Shimla, and Bhojia Dental College and Hospital Baddi, India). Burns and Groove (1993)^[13] note that convenience samples are inexpensive and accessible and usually require less time to acquire than other types of samples. Convenience samples provide means to conduct studies on topics that could not be examined using probability samples. They provide means to inquire information in unexplored areas.

Given that this was an exploratory study and one that was an attempt to identify students’ self-reporting of their own self-esteem levels, a convenience sample despite its limitations was deemed appropriate. The limitations of such a sample, however, need to be kept in mind when reviewing the outcomes of such a study.

A survey with 10 items developed by Saito *et al.* was used (after prior permission from the authors) to obtain Indian students’ perceptions about the profession by estimating the dimensions of “Motivation,” “Expectation” and “Environment.”^[10] The items 1-9 are listed in Table 1.^[10] The participants were asked to respond to a variety of questions involving rating scales as well as other types of categorical options. For item 10, the Rosenberg self-esteem scale was used to

Table 1: The survey instrument for dental hygiene students (items 1-9) for estimating perceptions toward the profession

1	Your age
2	How do you rate your present motivation to become a dental hygienist?
3	How do you rate your expectations for the profession?
4	How do you rate the professional environment for dental hygienists?
5	What was your initial reason for choosing dental hygiene as a carrier?
6	What aspect of dental hygiene appeals to you most?
7	How long do you plan to work as a dental hygienist?
8	As a dental hygienist, what area would you like to go into?
9	Would you like to start independent practice if allowed?

assess levels of ESE [Table 2].^[10,14] A four-point rating scale was used for each of the subscale questions. Questionnaire attached as Appendix.

Analysis

For statistical analysis of the data, a software package, SPSS for Windows (version 15.0; SPSS Inc., Chicago, IL, USA), was used. All the students in both the colleges (50) were included in the study. A total of 42 surveys were returned. The response rate was 84%. No invalid form was received. We checked the reliability by Cronbach’s alfa. The reliability was found to be 0.702; therefore, our data were reliable.

RESULTS

The mean age of the respondents was 20.5 (range 17-29) years. 78.6% were females and 21.4% were males. A summary of the responses to items 2, 3 and 4 is shown in Table 3. A –5-point scale was applied. As for the motivation to become a dental hygienist, the percentage of respondents whose answers were either “very high” or “high” was approximately 42.8%, and 57.1% respondents felt that their motivations were “low” and “very low.”

When asked to rate their expectations toward the profession, 54.7% of the respondents gave a rating of “very high” or “high,” while 45.2% felt that their expectations were “low” and “very low.” When asked to rate the professional environment for dental hygienists, 59.5% of the respondents rated the environment as “very good” or “good,” while 40.4% felt that the professional environment was “moderate” (94.11%) and 5.8% rated it as “bad.” However, none of them rated the environment at the lowest rating scale of “very bad.”

The students were asked to indicate their reasons for choosing dental hygiene as a career. The following values indicate the percentage of the respondents’ main reasons:

- 57.1% quoted having interest in health care
- 14.3% as a life time career
- 4.8% for obtaining professional license
- 2.4% indicated monetary advantages
- 21.4% were influenced by family members or relatives, which led them to choose this profession.

The students were then asked to indicate the factors in dental hygiene that appeal to them. The following values indicate the percentage of their responses:

- 14.3% as professional license
- 16.7% indicating acquisition of professional knowledge and skills
- 14.3% indicating provision of professional care
- 54.8% as opportunity to provide healthcare or independent practice.

When asked “how long do you plan to work as a dental hygienist?,” the responses were as follows:

- 52.4% as lifetime
- 40.5% having no specific plan
- 7.1% indicating until becoming a parent.

Table 2: Item 10 in the survey instrument. The Rosenberg self-esteem scale

1	On the whole, I am satisfied with myself
2	At times I think I am no good at all. R
3	I feel that I have a number of good qualities
4	I am able to do things as well as most other people
5	I feel I do not have much to be proud of. R
6	I certainly feel useless at times. R
7	I feel that I’m a person of worth, at least on an equal plane with others
8	I wish I could have more respect for myself. R
9	All in all, I am inclined to feel that I am a failure. R
10	I take a positive attitude toward myself

R: Items with scores reversed for quantitative analysis

Table 3: Summary of response to items 2, 3 and 4

Items	Questions	Rating	Dental hygienists, n (%)	Ratings were grouped and expressed as either high/low
2. Motivation	How do you rate your present motivation to become a dental hygienist?	5. Very high	6 (14.3)	High
		4. High	12 (28.6)	
		3. Moderate	21 (50.0)	Low
		2. Low	2 (4.8)	
		1. Very low	1 (2.4)	
3. Expectation	How do you rate your expectations for the profession?	5. Very high	8 (19.0)	High
		4. High	15 (35.7)	Low
		3. Moderate	19 (45.2)	
		2. Low	0 (0)	
		1. Very low	0 (0)	
4. Environment	How do you rate the professional environment for dental hygienists?	5. Very good	4 (9.5)	Good
		4. Good	21 (50.0)	Bad
		3. Moderate	16 (38.1)	
		2. Bad	1 (2.4)	
		1. Very bad	0 (0)	

When asked to indicate the professional area they wish to go into, prevention of periodontal diseases was the most prevalent answer, accounting for 35.7% of the respondents. The rest of the responses were:

- 26.2% indicating public health service
- 19% in education
- 11.9% in oral health care for elderly
- 2.4% as prevention of caries
- 2.4% indicating not sure
- 2.4% as pediatric dentistry.

When asked how they felt about independent practice if allowed, 88.1% of the respondents answered that they would like to go into independent practice. The following reasons against the independent practice were provided by the rest of the 11.9% of respondents:

- Too much responsibility (83.3%)
- Practice management seems overwhelming (7.1%)
- Better care can be provided by practice with dentists (9.5%).

In item 10, levels of students' self-esteem were sought [Table 4]. Self-esteem scores were evaluated [Table 5]. 92.9% of the students fell under the category of high self-esteem. When correlations between scores of items 2, 3 and 4 and self-esteem level were examined, a highly significant correlation ($P < 0.001$) was found between items 2, 3 and 4. That is, all three of "motivation," "expectation" and "professional environment" had a positive correlation with the self-esteem scores [Table 6].

DISCUSSION

The present study is a pilot study to assess the professional perceptions held by Indian dental hygiene students and its relationship to their ESE scores. No such other study has been conducted in India to the best of our knowledge. As per the results of our study, the Indian students' motivation to become a dental hygienist was significantly high. The majority of the Indian students enrolled into the programme immediately after graduation from high school or university. This is in contrast to the results of a study by Saito *et al.*, who reported previous work experience of Canadian dental hygienists to be a probable cause

for their higher self-esteem levels than Japanese hygienists.^[10] Whereas in accordance with our results, a study of Japanese nursing students found that students with previous work experiences were likely to have less incentive to become a nurse at school entry, although most studied enthusiastically while in school.^[15]

The level of expectation for the profession was significantly high for the Indian students. Dentistry in India has acquired many of the attributes of a profession. It is therefore possible that the social status of dentistry may have influenced the students' expectations in the present study.

When asked to indicate their reasons for choosing dental hygiene as a career at the time of enrollment, interest in health care and influence of family or relatives were the most frequent answers among the Indian students. This is in contrast to the Saito study, where "professional license" was the most frequent answer among the Japanese students.^[10] In the close knit family structure of India, relatives and family members play a crucial role in deciding the field to be pursued by the young family member. Doctors and health care workers are considered to be messengers of God and hence are highly respected. Whereas in the Japanese society, achieving a professional license is highly valued.^[10]

As for the students' future career plans, "life time" was the most frequent answer among the Indian students. A number of work style options are available for Indian dental hygienists. Many dental hygienists choose to work part-time or freelance in temporary positions or as self-employed contractors. These factors may influence students' desires for a future career plan.

When asked to indicate the area they would like to go into as a dental hygienist, they showed an interest in prevention of periodontal diseases. This trend was consistent with the unique practice of dental hygiene.

When asked to indicate the aspect of dental hygiene that appealed to them, opportunity to provide health care or independent practice was the most frequent choice (54.8%). This is in accordance to their wish to

Table 4: Results of the item 10 in the survey instrument. The Rosenberg self-esteem scale^[14]

The 4-point rating scale	The subscale question numbers (%)									
	1	2	3	4	5	6	7	8	9	10
Strongly agree	16.7	2.4	35.7	21.4	2.4	0.0	23.8	31	0.0	69
Agree	78.6	23.8	54.8	66.7	38.1	11.9	50.0	64.3	9.5	28.6
Disagree	4.8	40.4	7.1	11.9	35.7	61.9	21.4	4.8	38.1	0.0
Strongly disagree	0.0	33.3	2.4	0.0	23.8	26.2	4.8	0.0	52.4	2.4

Table 5: Self-esteem scores

	<i>n</i>	Percentage
Very low (0-10 points)	0	0.0
Low (11-20 points)	3	7.1
High (21-30 points)	39	92.9
Very high (31-40 points)	0	0.0

Table 6: Relationship between scores for items 2, 3 and 4 and self-esteemed scores

Items	Rating	Self-esteem [<i>n</i> (%)]		
		Low 11-20 points	High 21-30 points	Very high 31-40 points
2	High	3 (4.2)	64 (90.1)	4 (5.6)
	Low	13 (28.3)	18 (39.1)	15 (32.6)
3	High	3 (3.7)	75 (92.6)	3 (3.7)
	Low	13 (36.1)	7 (19.4)	16 (44.4)
4	High	10 (11.0)	77 (84.6)	4 (4.4)
	Low	6 (23.1)	5 (19.2)	15 (57.7)

go into independent practice (88.1%). In the present study, the students' evaluation of the professional environment was significantly high as compared with the other studies.

Self-esteem is a complex, multifaceted phenomenon. What was interesting when examining the subscales was that 92.9% of the students were rated as having a high level of social self-esteem. This could be due in part to the role played by social groups at the university and the importance placed on socializing with each other by the students. Beetencourt *et al.* suggest that there may be a relationship between academic adjustment and the role played by positively valued group membership on wellbeing.^[16] The majority of students in the study were female (78.6%); therefore, it was interesting to find consistent high levels of self-esteem. Previous research has demonstrated that males score higher on standard measures of global self-esteem compared with females, but that this difference was small.^[3,17]

It is well documented that concepts of "self" vary from culture to culture. It has been shown that East Asians, including Japanese, have less positive self-concepts than Westerners, and cultural differences have been quoted as a possible reason for the same.^[10,18-20] This is in direct contrast with our study, where we found the self-esteem levels of the Indian students to be high. This implies that environmental factors may be more influential than innate cultural factors for the development of self-esteem.

In our study, a statistically highly significant correlation ($P < 0.001$) was found between "motivation," "expectation" and "professional environment" and the self-esteem scores. This was in contrast with the study conducted by Saito *et al.*,

where they reported a significant correlation only between "expectation" and the self-esteem scores of the Canadian dental hygienist students as compared with the Japanese students.^[10] The Japanese students had lower levels of motivation, expectation and evaluation of professional environment. The dental hygiene programmes who participated in our study have different educational philosophy, entry requirements and selection procedures. Moreover, independent practice is allowed in India, although not in Japan. These differences could be the reason for the contrasting results.

The dental hygienist course in India is a 2-year training programme. Students who have passed class XII in the science stream are eligible to apply to the various universities. The universities hold written multiple choice-based exams for selection of the candidates. The number of seats varies from 10 to 20 per university. During the 2-year training programme, the students are taught both general education courses and courses specific to the field of dental hygiene. General education courses include courses like English, Basics of Computers and Record Keeping. Courses specific to dental hygiene may include anatomy, oral anatomy, dental materials, pharmacology, radiography, periodontology, nutrition and clinical skills. They are posted to the various clinical departments during their course and are taught common procedures that include oral prophylaxis, taking of prescribed radiographs, dental sealants, administration of fluoride and providing instructions for proper oral hygiene and care. They are taught to keep a record of the patient, do the necessary charting that includes a full review of the patient's medical history, necessary X-rays to be taken, a clinical examination and a periodontal assessment by probing and exploring areas of the patients' mouth.

Some studies have suggested that East Asians may be just as positive in ISE as are Americans.^[21-23]

The similarities in ISE across cultures may arise from cross-cultural similarities in child-rearing practices. Perhaps in all cultures, including East Asian and American cultures, parents and other adults provide unconditional love to infants and praise young children.^[18] Such early experiences may foster implicit self-positivity among Japanese and Chinese children, as much as among American children. Our finding that ESE measures reveal self-positivity in East Asians suggests that positive ESE may also be cultural universally and influenced by the same factors as ISE.

Eda reported that the levels of self-esteem and professional identity of Japanese dental hygiene

students increased after the clinical rotations.^[9] While there is no single factor that can increase or decrease a person's self-esteem, the potential impact of negative evaluation on self-esteem should be carefully assessed and educational strategies should be formulated to increase dental hygiene students' self-esteem.

Findings of the study by Taylor on novice dental hygienists of Ontario suggested that current dental hygienist graduates are not appropriately prepared for the transition from student to practitioner.^[24]

They reported difficulty in finding employment in general dental practices. Few were confident enough to start their own practice. Richardson also reported that hygienists who chose to venture out on their own have been practicing the profession for a mean of 20 years, with a minimum of 5 years and a maximum of 32 years.^[25]

Results of the study by Swanson showed that dental hygienists perceive their role in interdisciplinary collaboration as valuable, both now and in the future. However, current experience in collaboration is limited. Barriers to collaboration include insufficient time and knowledge of medical diseases. Speaking, listening and leadership skills are necessary to effectively participate in interdisciplinary collaboration. He stressed upon the need for greater education in communication skills and increased knowledge of medical diseases to overcome the same.^[26]

India boasts a whopping number of 289 dental colleges. However, the total number of seats in the Dental Hygienist course in India is only 837, that too only in 62 colleges across the country. This is not due to a lack of infrastructure or any other amenities. Taking into account the high level of motivation, expectations, satisfaction with the professional environment and perceptions of the students and their positive self-esteem, we support a call for the need to start the dental hygienist course in a greater number of dental colleges in India. This will lead to a greater scope of employment for the same in the field of academics as well in practice so as to cater to the ever-enlarging patient population.

Limitations

There are some limitations to the study. First of all, the sample size is relatively small; therefore, the results should be interpreted with caution. Although the present study is a cross-sectional study, it is important to study in greater depth the feeling of dental hygiene students about self-esteem and negative evaluation and to assess whether or not both these constructs change as students progress through their education program.

CONCLUSIONS

In answer to the question posed, how do dental hygienists perceive their own self-esteem, the findings indicated that they have high self-esteem levels and are satisfied with their profession. Although the self-esteem levels are high, there are certain grey areas that need to be looked into either at the school level in terms of curriculum or practical experience or better working environment or in terms of widening the scope of employment. We also conclude that environmental factors may be more influential than innate cultural factors for the development of self-esteem.

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Clinical relevance

Scientific rationale: Perceptions describe how a person views himself, his environment, his aspiration levels and his satisfaction with his profession. Our study aims to assess the same in Indian Dental Hygienist students. Principal findings: Students have high self-esteem and perception levels and are overall satisfied with their choice of profession. Practical implications: Although the self-esteem levels are high, there are certain grey areas that need to be looked into either at the school level in terms of curriculum or practical experience or better working environment or in terms of widening the scope of employment. We also conclude that environmental factors may be more influential than innate cultural factors for the development of self-esteem.

REFERENCES

1. Thomsen S, Arnetz B, Nolan P, Soares J, Dallender J. Individual and organisational well being in psychiatric nursing: A cross-cultural study. *J Adv Nurs* 1999;30:749-57.
2. Miers ME, Rickaby CE, Pollard KC. Career choices in health care: Is nursing a special case? A content analysis of survey data. *Int J Nurs Stud* 2006;44:1196-209.
3. Burnard P, Hebden U, Edwards D. Self-esteem and student nurses: An account of a descriptive study. *Nurs Health Sci* 2001;3:9-13.
4. Rosenberg M. *Society and adolescent self image*. Princeton: Princeton University Press; 1985.
5. Begley CM, White P. Irish nursing students' changing self-esteem and fear of negative evaluation during their preregistration programme. *J Adv Nurs* 2003;42:390-401.

6. Greenberg J, Soloman S, Pyszcynski T, Rosenblatt A, Burling J, Lyon D, *et al.* Why do people need self-esteem? Converging evidence that self-esteem serves an anxiety-buffering function. *J Pers Soc Psychol* 1992;63:913-22.
7. Moyer GA. The relationships among sense of coherence, self-esteem and self-perception of clinical competence in junior and senior baccalaureate nursing students. DNSc thesis. Pennsylvania, USA: Widener University School of Nursing; 1992.
8. Boey KW. Distressed and stress resistant nurses. *Issues Ment Health Nurs* 1999;20:33-54.
9. Eda S. Study of formation and education of occupational identity as dental hygienist – through clinical training. *J Japan Soc Dent Hyg* 2007;1:41-51.
10. Saito A, Tomita C, Sato Y, Cathcart G. Perceptions of Japanese and Canadian dental hygiene students towards their profession. *Int J Dent Hyg* 2009;7:188-95.
11. Saito A, Sunell S, Rucker L, Wilson M, Sato Y, Cathcart G. Learning climate in dental hygiene education: A longitudinal case study of a Japanese and Canadian programme. *Int J Dent Hyg* 2010;8:134-42.
12. Tafarodi RW, Ho C. Implicit and explicit self-esteem: What are we measuring? *Can Psychol* 2006;47:195-202.
13. Burns N, Grove SK. *The practice of nursing research: Conduct, critique and utilization*. 2nd ed. Philadelphia: WB Saunders; 1993.
14. Rosenberg M. *Society and the adolescent self-image*. Revised edition. Middletown: Wesleyan University Press; 1989.
15. Ootaka E, Itou M, Muta Y, Sampei Y, Sasaki R. Trend survey of graduates in Japanese Red Cross in Atika Junior College of Nursing (second report). Regarding experience for being member of society, completing academic work and satisfaction level for school life. *Bull Jpn Red Cross Junior Coll Akita* 2007;11:77-84.
16. Bettencourt BA, Charlton K, Eubanks J, Kernahan C, Fuller B. Development of collective self-esteem among students: Predicting adjustment to college. *Basic Appl Soc Psychol* 1999;21:213-22.
17. Kling KC, Hyde JS, Showers CJ, Buswell BN. Gender differences in self-esteem. A meta-analysis. *Psychol Bull* 1999;125:470-500.
18. Yamaguchi S, Greenwald AG, Banaji MR, Murakami F, Chen D, Shiomura K, *et al.* Apparent universality of positive Implicit Self Esteem. *Psychol Sci* 2008;18:498-500.
19. Sedikides C, Gaertner L, Vevea JL. Pancultural self-enhancement reloaded: A meta-analytic reply. *J Pers Soc Psychol* 2005;89:623-42.
20. Mullis IV, Martin MO, Gonzalez EJ, Chrostowski SJ. TIMSS 2003 International mathematics report: Findings from IEA's trends in international mathematics and science study at the fourth and eighth grades. Chestnut Hill, MA: TIMSS and PIRLS International Study Center, Boston College; 2004.
21. Cai H, Nei yin zi zun xiao ying ji nei yin zi zun he wai xian zi zun zhi jian de guan xi [The implicit self-esteem among Chinese in relation to explicit self-esteem]. *Acta Psychologica Sinica* 2003;35:796-801.
22. Kitayama S, Uchida Y. Explicit self-criticism and implicit self-regard: Evaluating self and friend in two cultures. *J Exp Soc Psychol* 2003;39:476-82.
23. Kobayashi C, Greenwald AG. Implicit- explicit differences in self-enhancement for Americans and Japanese. *J Cross- Cult Psychol* 2003;34:522-41.
24. Taylor L. Dental hygiene curriculum: An investigation of novice dental hygienists' assessment of how prepared they were for the transition from student to clinical practice. *Can J Dent Hyg* 2011;45:173-4.
25. Richardson F. Going on your own: Results of a survey of dental hygienists who have opened their own practices. *Can J Dent Hyg* 2011;45:175-6.
26. Swanson JK. Current perceptions of the role of dental hygienists in interdisciplinary collaboration. *J Dent Hyg* 2009;83:84-91.

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APPENDIX

Questionnaire

- NAME:
- AGE:
- GENDER:
- NAME OF COLLEGE:

Questionnaire (for items 1–9)

1. Date of birth ___/___/____.
2. How do you rate your present motivation to become a dental hygienist?
a. Very high b. High c. Moderate d. Low e. Very low
3. How do you rate your expectations for the profession?
a. Very high b. High c. Moderate d. Low e. Very low
4. How do you rate the professional environment for dental hygienists?
a. Very good b. Good c. Moderate d. Bad e. Very bad
5. What was your initial reason for choosing dental hygiene as a carrier?
a. Obtaining professional license b. As a life time carrier c. Interest in health care
d. Monetary advantages e. Influence of family or relatives
6. What aspect of dental hygiene appeals to you most?
a. A professional license b. Gaining professional knowledge and skills
c. Provision of professional care d. Opportunity to provide health care or independent practice
e. Monetary advantages
7. How long do you plan to work as a dental hygienist?
a. Lifetime b. Till you become a parent c. No specific plan
d. Till something better comes up
8. As a dental hygienist, what area would you like to go into?
a. Prevention of periodontal diseases b. Prevention of caries c. Not sure
d. Pediatric dentistry e. Orthodontics f. Aesthetic dentistry
g. Public health service h. Education i. Oral health care for elderly
9. Do you think the present curriculum gives you enough exposure of your field of interest?
a. Yes b. No
10. Would you like to start independent practice if allowed?
a. Yes b. No
11. If your answer to question number 9 is “no”, please indicate why you would not go into independent practice.
a. Too much responsibility b. Practice management seems overwhelming
c. Better care can be provided by practice with dentists

QUESTIONNAIRE (FOR ITEM 10)

1. On the whole, I am satisfied with myself.
a. Strongly agree b. Agree c. Disagree d. Strongly disagree
2. At times I think I am no good at all. R
a. Strongly agree b. Agree c. Disagree d. Strongly disagree
3. I feel that I have a number of good qualities.
a. Strongly agree b. Agree c. Disagree d. Strongly disagree
4. I am able to do things as well as most other people.
a. Strongly agree b. Agree c. Disagree d. Strongly disagree
5. I feel I do not have much to be proud of. R
a. Strongly agree b. Agree c. Disagree d. Strongly disagree
6. I certainly feel useless at times. R
a. Strongly agree b. Agree c. Disagree d. Strongly disagree
7. I feel that I’m a person of worth, at least on an equal plane with others.
a. Strongly agree b. Agree c. Disagree d. Strongly disagree
8. I wish I could have more respect for myself. R
a. Strongly agree b. Agree c. Disagree d. Strongly disagree

9. All in all, I am inclined to feel that I am a failure. R
a. Strongly agree b. Agree c. Disagree d. Strongly disagree
10. I take a positive attitude toward myself.
a. Strongly agree b. Agree c. Disagree d. Strongly disagree