



An Internal Evaluation of Educational Groups in Dentistry Faculty of Tabriz Medical University Using CIPP model in 2015

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ABSTRACT

The present study was carried out with the purpose of internal evaluation of educational groups in dentistry faculty of Tabriz Medical University using CIPP model. Statistical population of this descriptive- cross sectional study consists of faculty members (n=106) and specialized assistants (n=108), conducted as whole counting. Questionnaires in four aspects of context, input, process and product were used to collect data. Reliability coefficient was obtained by Cronbach's Alpha method. It was 0.886 for faculty members and 0.916 for assistants. Descriptive statistical methods were used for data analysis. In the context aspect, it was assessed fairly favorable and favorable by professors and assistants, respectively, for Endodontics, dental Prosthodontics, Pathology and Pediatric dentistry groups; it was evaluated fairly favorable for the other groups according to both perspectives. Professors of Periodontics group evaluated the input aspect fairly favorable and the assistants evaluated it favorable; Radiology professors assessed the input favorable and assistants recognized it fairly favorable and in other groups, professors and assistants assessed the input aspect fairly favorable. The process aspect was evaluated fairly favorable in Orthodontics, Pediatric and Radiology groups, favorable in Pathology group, and fairly favorable according to the professors and favorable according to the assistants in other groups. The product aspect was favorable in operative and Pathology groups from professors' viewpoints and fairly favorable according to the assistants' opinions.

Keywords: Evaluation, Context aspect, Input aspect, Process aspect, Product aspect.

INTRODUCTION

Today, evaluation is one of the most widespread and controversial topics of training discussions in educational centers. Due to the specific nature and performance of evaluation, it is used as a determining factor in the productivity and effectiveness of training programs in all accredited higher education centers all over the world. Therefore, evaluation programs in Medical education system are of particular importance due to the necessity of training skilled manpower to provide health care services with favorable quality [1].

It is always argued that to what extent education in faculties affiliated to the Ministry of Health, Treatment and Medical Education are favorable from the perspective of students, faculty members and graduates? What are the strengths and weaknesses of existing training programs? What solutions can be found for improving the educational quality?

Needs assessment and prioritization of the learners' needs has a positive effect on clinical training programs. In academic assessment and accreditation systems in some countries of North America and Europe, internal evaluation

is used as the initial core of national quality assurance systems [2, 3]. To explain educational goals, to provide a comprehensive analysis of performance and to help self-regulation and enhancement of the effectiveness and efficiency of the higher education system are some reasons of using internal evaluation in some European and North American countries. In order to dynamite the performance and upgrade the quality level of universities, especially universities of Medical sciences, a system of quality assessment is required [4, 5].

In the present era, speed and continuity of developments in medicine and dentistry occurs in a way that necessity of regular revision of educational programs to meet the new expectations of the education system should be concerned by authorities. Proper evaluation and research in education are regarded as the important tools of keeping pace with these developments in order to improve the quality of education and healthcare. Over the past two decades, all over the world, we have witnessed the quantity development of educational-Medical units. This increase has not necessarily accompanied by an increase in quality. However, due to increased awareness of the society, people's expectations level of the Medical community is increasing [6]. Likewise, a very fast growth of Medical universities in Iran has led to dental education growth from about 11 faculties in 1972 to 40 in 2012 [7]. In Medical education, from the 1990s, some national institutions in industrialized countries, including the US, UK and Australia have attended the evaluation and validation [8].

In Iran, the first continuous quality assessment in higher education with internal evaluation plan in Medical education was conducted in 1996 with development of research projects in six departments of Nutrition, Biochemistry, Rheumatology, Internal medicine, Gynecology, and Gum dentistry of Tehran Medical Sciences University and Internal medicine of Kerman Medical Sciences University. The results showed that internal evaluation plays a significant role in improving the quality of educational groups [10, 9]. The action organized for accreditation of general Medical education in Iran began in 2006 and the basic standards for general dentistry courses was approved and notified to be implemented in 2011 [11]. To determine training needs is the first step in the design and review of any educational program. To identify training needs allows optimum utilization of the limited resources available, in this regard, review of programs and educational objectives are emphasized [12].

Educational groups are considered as sub-systems of universities and improvement of a University quality relies on improving its educational groups; therefore, due to the importance of training effective human resources in health services as well as the importance of achieving educational goals of the Ministry of Health, Treatment and Medical Education at the affiliated faculties, internal evaluation of these groups will be an effective step in the quality growth of higher education system. Hence, to achieve appropriate educational programs and to identify policies suitable for departments of dentistry faculty of Tabriz Medical Sciences University, the educational status of the departments of dentistry faculty of Tabriz Medical University was studied using CIPP model in the academic year 2015 and professors and students' opinions were measured and evaluated at four aspects of context, input, process and product.

Tabriz Dentistry Faculty was established in 1987. In October 2009, the faculty began specialist training activities with the admission of specialized assistants in the fields of Oral & Maxillofacial Surgery, Endodontics and Periodontics. In 2002, with the admission of specialized assistant in the fields of Orthodontics and Operative dentistry and in 2007, with the admission in Oral medicine, Prosthodontics, Oral and Maxillofacial Pathology, Pediatric dentistry and Oral &Maxillofacial Radiology has continued its educational activities. Now, 10 training groups with resident admission are active.

CIPP Evaluation Model

CIPP evaluation model is one of the most effective systematic models based on management focusing on the effectiveness and quality of educational systems. This model was originally developed by Guba and then was introduced by Stuffle beam et al in 1960. They implemented it for the first time in 1965 [13]. CIPP model with a systematic approach addresses 4 evaluation elements of context, input, process and product as well as decisions about improving their performance.

In the context aspect, factors such as the needs, possibilities and problems in a particular environment are defined and investigated. In the input aspect, the required information about how to utilize the resources and strategies to achieve objectives of a training program is discussed. Input evaluation for designing and selecting appropriate methods helps to achieve the goals. Evaluation of the process is performed to detect or anticipate administrative problems in implementation of the educational activities and the desirability of the activities implementation

process. The product aspect of the evaluation is to assess and determine effects of the educational program on the graduates and the results are compared with the program objectives [14-16]. Decisions taken during each of the four evaluations include:

- 1] Planning decisions resulted from the context evaluation in order to formulate objectives of the program;
- 2] Structuring decisions resulted from the input evaluation in order to design appropriate programs to achieve the objectives;
- 3] Implementing decisions resulted from the process evaluation in order to recognize the implemented program and thus to guide and improve it;
- 4] Recycling decisions resulted from the product evaluation in order to judge the entire program [13].

Review of literature:

Gandomkar believes that CIPP evaluation pattern supports the planners and executors of training programs. He also states that emphasis on the constructive evaluation during evolution stages of a program from the beginning to the planning stages and finally its completion help the decision makers to make appropriate decisions and is mostly prospective [17].

Oladapo [2014] investigated the revision of Medical and dental curriculum approaches in Nigeria. He believed that using CIPP model is appropriate to assess educational objectives of medicine and dentistry faculties [18].

In a case study, Boonchutima [2012] evaluated communications efficiency in the public health in Thailand using the CIPP model. In this research, effective communication involves four steps: researching- listening, planning- decision making, communications- practice and evaluation. Boonchutima recognized that the last step was vital because in his opinion evaluation will be as a guide to determine the effectiveness of previous goals and to develop future objectives. He also stated that Health Organization operations are very bureaucratic which makes it impossible to do evaluation with the usual methods. According to Boonchutima, row and ambiguous data obtained by CIPP provides many fine and very useful points as a complementary to make decisions on organizational changes and to create job motivation for more effective effort and to help a better management [19].

Singh [2004] evaluated nursing education programs at New York University arguing that the evaluation via CIPP model will improve the quality and effectiveness of programs [20].

Linda Saleh [2006] assessed cross-cultural training programs in 45 dentistry faculties of the United States of America. She has greatly emphasized on ongoing assessment of programs and educational purposes of dental schools [21].

Farzianpour [2005] in a research titled as "*Educational evaluation of fifteen training groups of Tehran Medical University*" reported that the mean of evaluation results was fairly favorable in eight areas of management and organization, academic staff, students, human force and support, educational and research spaces, educational equipment, educational programs, teaching-learning process [22].

Yarmohammadian, et al [2015] reviewed the evaluation of health information technology indexes during the postgraduate course of Medical University based on the CIPP. The context aspect was reported favorable and the input and process aspects were reported fairly favorable [23].

Makarem, et al [2014] evaluated the training status in oral health social dentistry departments of Mashhad Dental School from perspectives of professors and students and by the use of CIPP evaluation model. According to the students, the context, input and process aspects were favorable and the product aspect was fairly favorable [24].

Alimohammadi, et al [2013] assessed dentistry faculty of Rafsanjan Medical University based on CIPP. The context aspect was favorable in professors' opinion and fairly favorable in students' opinion. Aspects of input, process and product were favorable according to professors and fairly favorable according to students [25].

Jafari Ghavamabad, et al [2013] conducted an internal evaluation on oral health and social dentistry department of Tehran Medical University. The mission, goals, management and structure of the department was reported fairly favorable. In this research, the factors of students, faculty members and education- research equipment were also

fairly favorable. In the input aspect, professors' curriculum was compatible and consistent with educational objectives. The process area was expressed relatively favorable [26].

Pakdaman et al [2011] conducted a study to assess the achievement rate of educational goals among Periodontics and oral health groups from the perspective of dental students of Tehran Medical University using CIPP model. Results indicated that the content of materials and time of the credits were not appropriate in students' opinion; however, they were more satisfied. In the input aspect, students believed that the motivation and skill of the credits teachers was inadequate. They also were not sufficiently satisfied with the product [27].

Ghandehari [2010] measured the internal evaluation of Pediatric dentistry department of Tehran Medical University. The factors of context, input, process and product were reported fairly favorable [28].

Akhlaghi et al [2011] assessed the quality of educational programs in higher education in universities of Tehran Medical Sciences, Iran, Shahid Beheshti and Isfahan by the use of CIPP model. The curriculum areas, budget, facilities, students' activities, research activities, management and graduates were fairly favorable. In general, the factors of context, input, process and product were fairly favorable [29].

Zarrabian et al [2008] conducted an internal evaluation on Endodontics department of dentistry faculty of Tehran Medical University. The areas of mission and objectives, management and organization, academic staff, adequate training programs, students and graduates were fairly favorable and educational spaces were reported unfavorable. Finally, the context and process were favorable and the input and product were relatively favorable [30].

Mirzaei et al [2012] conducted an internal evaluation on the selected departments of the Medical faculty of Ilam Medical University. The mission and goals of the department, academic staff, students, courses and programs, teaching and learning process, research activities, facilities and equipment were relatively favorable [31].

The research questions

1. Is the status of context factors favorable in educational groups of Tabriz dentistry faculty from the professors and students' perspective?
2. Is the status of input aspect favorable in educational groups of Tabriz dentistry faculty from the professors and students' perspective?
3. Is the process aspect favorable in educational groups of Tabriz dentistry faculty from the professors and students' perspective?
4. Is the product aspect favorable in educational groups of Tabriz dentistry faculty from the professors and students' perspective?

MATERIALS AND METHODS

Method: This is an evaluation applied research. Taking into account the objectives and questions of the research, this is a descriptive study conducted by quantitative methods.

Design and population: In this descriptive- cross sectional study, the education status of dentistry faculty departments of Tabriz Medical University in 2015 was measured and evaluated using CIPP model over a period of 8 months. The research population included 108 residents and 106 professors of 10 educational groups of Tabriz dentistry school.

Instruments: Questionnaires with 103 questions in 4 dimensions (context, input, process and product) based on the Likert scale was designed for the two evaluated groups (academic staff and students). The scores of utility or satisfaction were assigned as very high = 5, high=4, moderate= 3, low = 2, very low= 1. Verifying the questionnaire validity by a few of the experts, the reliability was calculated in a pilot study using the method of estimating the Cronbach's alpha coefficient on 40 subjects of the study population. To this end, 20 questionnaires were distributed among professors and 20 questionnaires were distributed among assistants randomly and in identical terms. Then, with respect to information collected, the reliability coefficient was obtained equal to 0.886 for academic staff questionnaires and 0.916 for students' questionnaires. The reliability coefficients were confirmed.

Data analysis: After distributing and collecting questionnaires, descriptive statistics (tables, mean and standard deviation) was used to analyze the data. Then, using a judgment spectrum, the desirability level was identified as

unfavorable for a score between 1 and 2.33, fairly favorable for a score between 2.34 and 3.66 and favorable for a score between 3.67 and 5.

Answers to the research questions:

1. Is the status of context factors favorable in educational groups of Tabriz dentistry faculty from the professors and students' perspective?

In the context aspect, factors were assessed: mission and objectives, management, structure and organization of the group.

✓ The factor of mission and objectives was inspected in terms of development in the areas of research, education and specialized services provision, openness and transparency, awareness, objectives appropriateness with individual and society needs, contribution to the development, the realization and achievement of objectives, and the level of review.

✓ The performance of the group manager, educational and research assistants, the proportion of the group experts number, the independency level of the group, programs to develop the group, internal regulations, funding, inter/intragroup communications were assessed in the factor of management and organizational structure.

Results of evaluating the context aspect are presented in Table 1.

2. Is the status of the input aspect favorable in educational groups of Tabriz dentistry faculty from the professors and students' perspective?

In input aspect four factors of academic staff, students (assistants), educational programs and facilities were studied.

✓ The professors' scientific rank, the ratio of assistants to the academic staff and the ratio of assistants to educational facilities of the group were considered as the evaluation criteria in the factor of academic staff and assistants.

✓ The adequacy and appropriateness of theoretical and practical lessons, participation rate in formulating plans, monitoring implementation, extracurricular activities, the group meetings per capita and reviewing the programs were studied in the factor of educational programs.

✓ Access to computer and internet facilities, scientific books and journals, space fitness of libraries, workshops and laboratories, physical and equipment quality of training classes were some criteria of inspecting the factor of educational facilities.

Results of evaluating the input aspect are presented in Table 2.

3. Is the process aspect favorable in educational groups of Tabriz dentistry faculty from the professors and students' perspective?

In the process aspect, two factors of teaching- learning process and research-training activities were evaluated:

✓ Teaching methods, considering students' individual differences, applying proper educational materials and tools, utilizing ICT in teaching, professors' interest in teaching, assessment and feedback were studied in the teaching-learning process.

✓ Attracted participation in research activities, the level of satisfaction with research activities, the level of cooperation in the implementation of research projects, the level of members' contribution to implementation and the level of research budgets adequacy are of the studied markers in the factor of research-training activities.

Results of evaluating the process aspect are summarized in Table 3.

4. Is the status of product aspect favorable in educational groups of Tabriz dentistry faculty from the professors and students' perspective?

In the product aspect, two factors were assessed: Scientific products of the groups and graduates.

✓ The number of scientific papers published, authored or translated books, participating in national and international conferences is discussed to evaluate scientific products.

✓ The amount of interest in the discipline, to meet the professional expectations in the labor market, annual meetings per capita for graduates, graduates participation in research activities and the satisfaction level of professional performance were indicators established to evaluate the factor of graduates.

Results of evaluating the product aspect are shown in Table 4.

DISCUSSION AND CONCLUSION

Evaluation of the educational goals is of the important and noteworthy issues of theorists and those involved in the educational systems. In today's world, the necessity to pay attention to the quality of training and the productivity resulting from it is of a great importance. Also, continuity and the dynamics adapted to social developments have changed the education quality and how to attain it has become an important issue of organizations involved in training. Curriculum specialists in order to be able to improve their performance and curriculum attend to evaluation of educational objectives in their procedures (32). Dentistry as one of the important fields of Medical sciences is

combined with numerous practical and theoretical skills. To acquire these skills allows a dentist to diagnose and perform therapeutic procedures. Obviously, improving the quality of clinical training in this field will have a direct effect on the progress of the oral health status of the society. Therefore, to obtain suitable educational programs and to make policies appropriately in the departments of dentistry faculty of Tabriz Medical University through a study, the educational status of departments of Dentistry faculty of Tabriz Medical University in the school year 2015 was investigated using CIPP model and professors and students opinions on any dimensions of the context, input, process and product were measured and assessed.

Results of the Context Aspect

Awareness of academic staff and assistants of the departments' goals and the mission was favorable. Departments' mission was commensurate with individual needs and students' expectations. However, the revised objectives and the mission was little satisfactory. The management structure was satisfactory enough. Internal regulations were related to the research and educational activities. To finance, groups needed more planning. Educational and research links between the groups and outside the group were desirable.

Educational groups of Periodontics, Orthodontics, Operative dentistry, Oral & Maxillofacial Radiology and Oral medicine were fairly favorable according to the professors and students' idea that is consistent with the studies of Ghandehari [28], Akhlaghi [29], Mirzaei [31] and Alimohammadi [25]. In context, groups of Endodontics, Prosthodontics, Oral & Maxillofacial Pathology and Pediatric dentistry were fairly favorable and favorable according to the professors and students, respectively. In these groups, assistants were more satisfied than professors that is consistent with the studies of Alimohammadi [25] and Pakdaman [27].

Results of the Input Aspect

Training programs of the groups were favorable to create a scientific foundation and upgrade the skills. Practical and theoretical courses fit together sufficiently. Participation in the programs formulation, curriculum planning meetings per capita, review of lessons according to the needs of the curriculum, society and the labor market, the rate of access to computer and the internet facilities and proportion of books and scientific journals in the groups were fairly favorable. In the department of Periodontics, the input aspect was assessed fairly favorable and favorable by academic staff and assistants, respectively. By reviewing previous studies, no consistent finding was found. In the department of Radiology, the academic staff evaluated the input favorable and the assistants evaluated it fairly favorable which is consistent with the study of Alimohammadi [25]. In other groups, the input aspect was reported fairly favorable by faculty members and assistants. In the studies of Makarem [24], Ghandehari [28], Akhlaghi [29], Mirzaei [31] and Zarrabian [30] the input aspect was assessed fairly favorable by the academic staff and assistants which is consistent with the current study.

Results of the Process Aspect

Courses are taught according to the lessons plan adopted by the group. Academic staff's interest in teaching is desirable. Conducted evaluations and provided feedback for the groups are favorable. Attracting participation of the academic staff in research activities and their cooperation level in these guidance and counseling and other research activities are favorable. To finance for research projects is fairly favorable.

In the groups of oral and maxillofacial surgery, Endodontics, Periodontics, Operative, Oral medicine and Prosthesis, the process aspect was fairly favorable and favorable according to the professors and assistants' ideas, respectively. No consistent study was found. The process aspect in the groups of Orthodontics, Pediatric dentistry and Oral & Maxillofacial Radiology was evaluated fairly favorable by professors and assistants that is consistent with the study of Makarem [24]. In studies conducted by Ghandehari [28], Jafari Gavamabad [26], Akhlaghi [29] and Mirzaei [31], the process was reported fairly favorable. The process aspect in the department of Oral & Maxillofacial Pathology was desirable from the perspective of professors and assistants. By reviewing previous studies, no consistent research was found with the results obtained.

Results of the Product Aspect

The number of authored or translated books was reported unfavorable to relatively favorable in most of the groups. The rate of published scientific articles in reputable national and international journals and participation in national and international conferences was favorable for professors and fairly favorable for assistants. Dentistry graduates were at an optimal level in terms of having a job and its relationship with the discipline. Graduates who pass the national board exams are invited to lecture and teach the credits. In the groups of Operative dentistry and Oral &

Maxillofacial Pathology, the product aspect was evaluated favorable and fairly favorable by professors and assistants, respectively, suggesting academic staffs' more satisfaction than the assistants. This is consistent with the results of Alimohammadi's research (25). Professors and assistants of the other groups believed that the product aspect was favorable. This is inconsistent with the study of Makarem (24) that both academic staff and students had evaluated the product aspect fairly favorable.

Table 1: The reliability of questions related to the evaluated variables

variable	Academic staff		Assistants	
	Alpha value	Questions Number	Alpha value	Questions Number
Context	0.890	46	0.924	40
Input	0.839	23	0.808	28
Process	0.817	26	0.897	26
Product	0.787	8	0.775	9
Total questions	0.886	103	0.916	103

Table2. Results of context according to professors and assistants' perspective

Group	Mean	professors' evaluation	Mean	Assistants' evaluation
Oral and Maxillofacial Surgery	3.23±0.18	Fairly favorable	3.59±0.74	Fairly favorable
Endodontics	3.34±0.15	Fairly favorable	3.68±0.28	favorable
Periodontics	3.41±0.12	Fairly favorable	3.62±0.22	Fairly favorable
Orthodontics	3.28±0.08	Fairly favorable	3.61±0.26	Fairly favorable
Operative Dentistry	3.30±0.19	Fairly favorable	3.64±0.29	Fairly favorable
Oral Medicine	3.33±0.19	Fairly favorable	3.66±0.25	Fairly favorable
Prosthodontics	3.27±0.22	Fairly favorable	3.68±0.25	favorable
Oral and Maxillofacial Pathology	3.40±0.18	Fairly favorable	3.68±0.26	favorable
Pediatric Dentistry	3.27±0.21	Fairly favorable	3.74±0.31	favorable
Oral and Maxillofacial Radiology	3.39±0.19	Fairly favorable	3.63±0.28	Fairly favorable

Table3. Results of input according to professors and assistants' perspective

Group	Mean	professors' evaluation	Mean	Assistants' evaluation
Oral and Maxillofacial Surgery	3.46±0.27	Fairly favorable	3.49±0.40	Fairly favorable
Endodontics	3.53±0.42	Fairly favorable	3.29±0.34	Fairly favorable
Periodontics	3.50±0.34	Fairly favorable	3.73±0.27	favorable
Orthodontics	3.50±0.53	Fairly favorable	3.62±0.49	Fairly favorable
Operative Dentistry	3.51±0.41	Fairly favorable	3.55±0.40	Fairly favorable
Oral Medicine	3.59±0.46	Fairly favorable	3.34±0.55	Fairly favorable
Prosthodontics	3.58±0.47	Fairly favorable	3.13±0.35	Fairly favorable
Oral and Maxillofacial Pathology	3.39±0.20	Fairly favorable	3.62±0.49	Fairly favorable
Pediatric Dentistry	3.60±0.59	Fairly favorable	3.48±0.38	Fairly favorable
Oral and Maxillofacial Radiology	3.76±0.61	favorable	3.56±0.32	Fairly favorable

Table4. Results of process according to professors and assistants' perspective

Group	Mean	professors evaluation	Mean	Assistants' evaluation
Oral and Maxillofacial Surgery	3.63±0.34	Fairly favorable	3.90±0.32	favorable
Endodontics	3.58±0.48	Fairly favorable	3.73±0.78	favorable
Periodontics	3.59±0.32	Fairly favorable	3.98±0.40	favorable
Orthodontics	3.56±0.33	Fairly favorable	3.61±0.46	Fairly favorable
Operative Dentistry	3.52±0.44	Fairly favorable	3.75±0.32	favorable
Oral Medicine	3.50±0.52	Fairly favorable	3.84±0.37	favorable
Prosthodontics	3.54±0.38	Fairly favorable	3.96±0.45	favorable
Oral and Maxillofacial Pathology	3.80±0.46	favorable	3.93±0.34	favorable
Pediatric Dentistry	3.43±0.40	Fairly favorable	3.62±0.48	Fairly favorable
Oral and Maxillofacial Radiology	3.28±0.49	Fairly favorable	3.63±0.68	Fairly favorable

Table5. Results of product according to professors and assistants' perspective

Group	Mean	professors' evaluation	Mean	Assistants' evaluation
Oral and Maxillofacial Surgery	3.76±0.67	favorable	3.78±0.62	favorable
Endodontics	3.82±0.62	favorable	3.74±0.50	favorable
Periodontics	3.80±0.42	favorable	3.91±0.20	favorable
Orthodontics	3.83±0.54	favorable	3.84±0.54	favorable
Operative Dentistry	3.83±0.50	favorable	3.63±0.64	Fairly favorable
Oral Medicine	3.86±0.44	favorable	3.94±0.53	favorable
Prosthodontics	3.90±0.65	favorable	3.84±0.40	favorable
Oral and Maxillofacial Pathology	3.97±0.39	favorable	3.65±0.53	Fairly favorable
Pediatric Dentistry	3.81±0.71	favorable	3.77±0.63	favorable
Oral and Maxillofacial Radiology	4.07±0.32	favorable	3.72±0.38	favorable

CONCLUSION

In the final analysis of the data, professors evaluated all of their departments fairly favorable. Assistants of six groups of Oral and Maxillofacial Surgery, Periodontics, Orthodontics, Oral medicine, Oral & Maxillofacial Pathology and Pediatric dentistry assessed their group favorable and assistants of four departments of Endodontics, Operative, Prosthetics and Oral & Maxillofacial Radiology evaluated their group fairly favorable. The most desirability belonged to assistants of Periodontics group with an average of 3.81 and standard deviation of 0.18 and the lowest desirability was assigned to the professors of Oral and Maxillofacial Surgery with an average of 3.25 and standard deviation of 0.17.

Acknowledgments

Hereby I wish to express my profound gratitude to all the professors and assistants at Dentistry Faculty of Tabriz University of Medical Sciences, especially to Dr. K. Khdadost, the dear responsible for Research & Development Center of Tabriz Dentistry Faculty, who helped us to fructify the research findings.

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