Evaluation of graduate students' satisfaction from thesis supervision in Babol Faculty of Dentistry

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ARTICLE INFO	ABSTRACT
	Introduction: Students' satisfaction of their supervisor is very important in the process of writing a thesis; while satisfaction is present, favorable outcomes could be expected. This study compared graduate students' satisfaction of their supervisors from various departments. **Materials and Methods:** In this descriptive cross-sectional study conducted in 2013, 90 graduate students who had entered Babol Faculty of Dentistry in 2004, 2005 and 2006 were studied. A valid and reliable questionnaire was used for data collection. Data was analyzed by SPSS using descriptive and inferential statistics. **Results:** Mean age of the participants was 28.4 (SD=6.76) and 42.2% were male. Mean satisfaction score was 28.3±6.3 (out of 36). There was no significant difference among levels of participants' satisfaction based on their entrance years. The married participants revealed higher satisfaction compared to the singles (p=0.05). The relationship between students' satisfaction and their course duration was inversely significant (p=0.04). The participants' satisfaction was not associated with their age, sex, total grade point average (GPA), thesis score, and their supervisors' education and research history. No significant difference observed among the students' satisfaction with supervisors from different departments (p=0.58). **Conclusion:** Reinforcing supervision skills by performing suitable workshops providing a clear role description for faculty members and their students can improve the students' perspectives and theses presentation quality. **Keywords:** Thesis, Thesis supervisor, Satisfaction, Dental students.

Introduction

The main goal of professional courses in medicine and dentistry is to help students develop ability to use, organize, and process the data, arrive at appropriate decisions, present a treatment plan or a consultation based on evidence, and at the same time actively participate in research. This student needs scientific information as well as educational support. It can be said that writing thesis is an opening avenue toward academic achievement [1,2].

Thesis, as a course with no formal classroom, is a mutual interaction between supervisor and student with a special and undeniable impact on students' achievement. Hence, this course is considered to be unique and different from other courses [3].

Obviously, supervisors' role and significance of their supervision are undeniable in writing a quality thesis. In a simple definition, it could be said that thesis supervision includes a group of focused tasks about a topic undertaken by a student and guided by one or more faculty

members leading to completing a thesis [4]. Acker assumes this task as a type of education and expresses that: *"thesis supervision is a totally complicated educational role that needs strong commitment for spending time and energy. Thesis supervision is faced with a lot of problems that include a vast range from paying attention to the technical points of process to maintaining the morale and even health of students"* [5].

There are some important and complicated issues in supervising a thesis including: creation of a professional communication, persuasion students to perform research, helping students to choose a primary research plan, to present scientific problems, to complete their research, and to prepare for thesis final presentation [6].

Students' satisfaction of supervisor is very important in process of writing a thesis; and while this satisfaction is present favorable outcomes could be expected. This is so important that Aguinis et al believed that it can affect the students' achievement, their general satisfaction of whole course and even their future success in their job [7,8]. Kam also mentioned that satisfaction of the whole course is affected by satisfaction of supervisor [8]. However, various factors could influence on quality of relationship between supervisors and students and their satisfaction of this relation, for instance, the personality, age, and gender of the supervisor, favorite fields of student and supervisor, general satisfaction of students about course period, total length of the course, atmosphere and culture of the university, etc [9]. Students' dissatisfaction of the situation is a major issue affecting quality of doctorate thesis. Grevholm et al believed that although various factors could be involved in the occurrence of these situations, but the role of supervisor and his or her guidance are very important [10].

These serious issues emphasize on the importance of evaluation of students' satisfaction of their supervisors. Vitkinas mentioned some obligations and necessities due to continuing changes in the field of science and technology and complicated problems and tasks of supervisors [11]. Heath also believed that the quality of student-supervisor relation and also the quality of doctoral thesis can be improved by regular evaluation of students' satisfaction [12]. Harman believed that the quality and final score of thesis relate to the satisfaction of students about their supervisors [13].

The current present study could reveal strong and weak points of supervisors' guiding role. Moreover, the study codified questionnaire could be used as a tool for evaluation of supervisors' performance in universities and other research centers.

Methods and Materials

In this descriptive cross-sectional study performed in 2013, 90 graduate students entered the Babol Faculty of Dentistry in 2004, 2005, and 2006 were investigated. A census method was used and access to participants was direct or by phone call. Data collection was by an author-made questionnaire which was prepared with the help of scientific resources and experiences of university professors. This questionnaire consisted of two parts: the first part addressed demographic features including age, gender, marital status, entrance year, course duration, thesis presentation date, total grade point average (GPA), thesis score and the supervisors' department. All items of this part as well as the number of supervised thesis by each supervisor and their teaching experience history were collected using available information in education division, research division and the faculty library. The second part of the questionnaire consisted of some questions for evaluation of students' opinions about their supervisors. These questions encompassed all different stages of developing a thesis. Questions on this part consisted of 12 items to address the level of satisfaction on cooperation of supervisors during all steps of preparing a thesis- from choosing a subject to final presentation- supervisors' managing status like accessibility, management of time and quality of social behavior. All items were designed using five-point Likert system (grade 1: very low, grade 2: low, grade 3: medium, grade 4: high, grade 5: very high). After collecting the data, grades of low with very low merged as "low" and grades of high with very high as "high" to facilitate the report of findings. Therefore, the results were reported with grade 1 for low satisfaction, grade 2 for medium satisfaction and grade 3 for high satisfaction. General satisfaction of participants was reported by the total score for 12 questions (minimum of 12 and maximum of 36).

Questionnaire items	Students' satisfaction in percentage		
	low	Medium	High
1. My supervisor was accessible when it was necessary during thesis procedure.	14.5	22.2	63.3
2. My supervisor had acceptable effort for solving my problems.	18.9	28.9	52.2
3. My supervisor presented resources and additional information related to my thesis.	22.1	45.6	32.3
4. I received useful guidance from my supervisor about choosing the subject and related topics.	12.2	16.7	71.1
5. I received useful guidance from my supervisor about the formulation and adoption of the proposal.	21.1	32.2	46.7
6. I received useful guidance from my supervisor about introduction and preparation of research tools.	21.1	36.7	42.2
7. I received useful guidance from my supervisor about obtaining research results.	22.3	33.3	44.4
8. I received useful guidance from my supervisor about collecting and analysis of data.	31.2	41.1	27.7
9. I received useful guidance from my supervisor about dissertation editing and preparation for presentation.	14.4	26.7	58.9
10. I received useful guidance from my supervisor about styles of writing research.	15.6	31.1	53.3
11. My supervisor managed the scheduled time for thesis preparation.	21.1	11.1	67.8
12. My supervisor had appropriate social behavior during our meetings.	3.3	8.9	87.8

The content validity of this questionnaire was confirmed by 7 experts in the faculty; and also its reliability was evaluated by test-retest carried out on 10 graduate students. (α-Chronbach: 0.89; the correlation coefficient of results: 0.91; $p < 0.001$).

The data was analyzed by SPSS version 18 using ANOVA and Chi-square tests at a significant level of $p < 0.05$.

Results

All 90 questionnaires were completed and verified (response rate: 100%). Participants' distribution from 2004, 2005 and 2006 entrances were 28.9%, 32.2% and 38.9%, respectively. The participants included 48 (42.2%) males and 52 (57.8%) females. Also, 51.1% of participants were single and 48.9% were married at the time of thesis presentation. Mean age of respondents was 28.4±6.7 at the time of their thesis presentation.

Participants' responses to the questionnaire items are presented in Table 1. The highest level of satisfaction was for "appropriate social behavior of supervisor" and the lowest was for "receiving necessary guidance for data analysis".

Variables		High satisfaction	Medium satisfaction	Low satisfaction
Duration of education	6 years or less	65.1	27.9	7
	6 to 7 years	50	35	15
	More than 7 years	14.3	42.8	42.9
	17 to 20	45.5	27.2	27.3
Total GPA	15 to 16.99	52.5	35.6	10.9
	13 to 14.99	65	25	10
Supervisors' Teaching experience	Less than 5 years	44.8	34.5	20.7
	5 to 10 years	55.9	29.4	14.7
	More than 10 years	63.6	36.4	0

The results showed general mean satisfaction of individuals as 28.3±6.3 (out of 36). The levels of participants' satisfaction were not statistically significant among the three entrances (p=0.72). The age of individuals at the time of thesis presentation had a direct relationship with their level of satisfaction, but this relation was not statistically significant (p=0.20).

Participants of this study were divided into 3 groups based on course duration: 6 years or less, 6-7 years, and more than 7 years. According to the Table 2, the level of satisfaction decreased with an increase in the course years (p=0.04).

Table 2 shows individuals' satisfaction according to their total GPA. As shown, individuals' satisfaction had a reverse relationship with their total GPA; that is, with an increase in their total GPA their satisfaction decreases, but this relation was not statistically significant (p=0.54). Teaching experiences of professors were considered and divided into 3 groups: less than 5 years, between 5 to 10 years and more than 10 years. Although with an increase in teaching experience the percentage of "high satisfaction" increased, this relation was not statistically significant (p=0.25).

There was not any significant relation between participants' satisfaction and their gender and also their thesis score. But high levels of satisfaction in married participants compared to the singles was statistically close to significant level (p=0.055).

The supervisors' research history in terms of the number of previous supervised theses was not statistically related to the participants' satisfaction (p=0.96). The rate of "high satisfied" individuals having a supervisor with less than five previously supervised theses was almost equal to those whose supervisors had guided more than 10 theses (%53.8 versus %57.5 in arrow) and also more than those whose supervisors had a history of 5 to 10 thesis supervision (% 45.5).

Participants of this study were also grouped according to their supervisors' departments. Chart 1 shows the means of students' satisfaction scores by their supervisors working fields. There was no significant relationship among participants' satisfaction supervisors from various departments (p=0.58).

Discussion

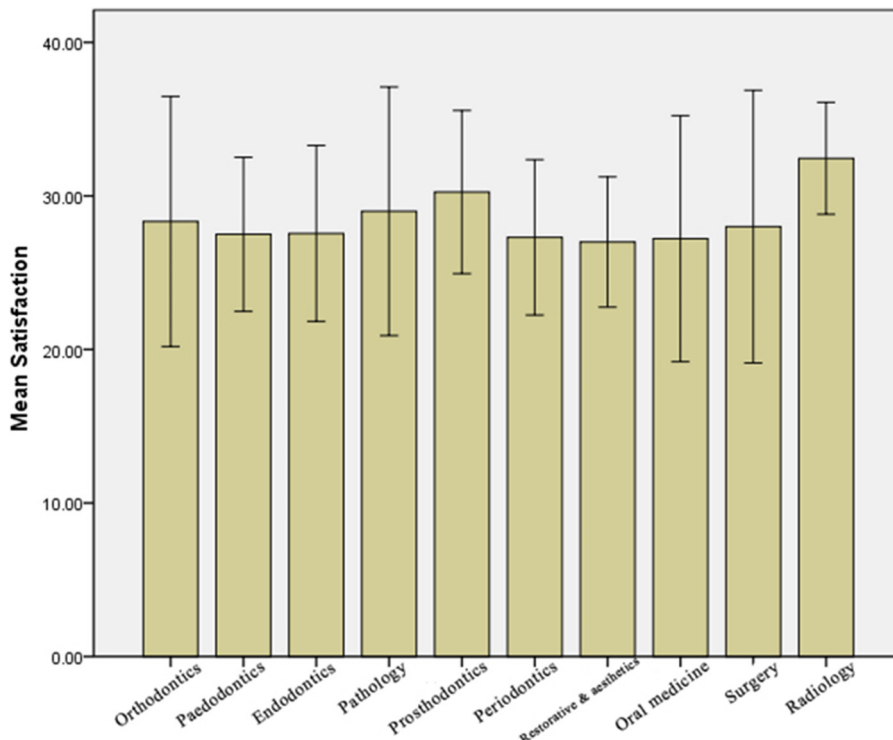Satisfaction about supervisors' performance among graduate students of three consecutive

Chart 1. Participants' satisfaction based on supervisors' departments.

entrances and from all departments of Babol Faculty of Dentistry was studied and there was found no significant difference among levels of students' satisfaction of different departments. Based on the results of this study, students' general satisfaction from their supervisors' research experience was 67.8%, that was similar to Mizany report from Tehran University of Medical Sciences and also Rose report from James Cook University of Australia, and more than Dehghani report from Tabriz University of Medical Sciences (58%) and Refahi reports from Isfahan University of Medical Sciences (43.6%) [6,14-16].

The Results of this study revealed that the highest students' satisfaction was in the initial step of "choosing topic" and final steps including "writing thesis" and "become ready for presentation". This is in accordance with Holdaway et al study [17].

Radafshar et al reported that 61% of their respondents were confused and anxious when they wanted to choose a topic for their thesis [18]. According to Rudd, a research topic is suitable for a student when it is interesting for him, feasible in a special period of time and also has a supposedly achievable goal. These factors refer to the supervisor role in choosing a right topic [19]. In Isaac et al study, the most important factor in choosing a doctorate thesis topic was the student interest in a topic [20]. Dehghani reported that in Tabriz University of Medical Sciences the quality of supervisors' guidance for choosing a right topic has received the highest level of dissatisfaction [16].

In the final step, i.e. presenting thesis, students received appropriate guidance which is similar to the Radafshar study [18]. The participants had high satisfaction about the received guidance for scientific writing styles. This high level of satisfaction is unassociated with Sobhani report in Guilan University of Medical Sciences and Asefzadeh report in Qazvin University of Medical Sciences [21,22]. Current study participants showed the lowest level of satisfaction in items of "data analyzing" and "providing references and further information". This was consistent with Nili, Mizany, Kabaca, Tosunoglu, Dehghani, Ari, and Melbourne Royal Institute of Australia reports [4,6,14,23-26].

In this study students were asked about their supervisors' personality and management styles, and their cooperation in different steps of thesis preparation. Accordingly, "social behavior of supervisor" received the highest satisfaction followed by "time management", "accessibility" and "capability", respectively. In Mizany study, graduate students were just satisfied about "appropriate behavior of professors with students" (mean of 3.08 of 4) and their satisfaction about other aspects of thesis guidance quality was moderate [14]. In Mabrouk and Peters study, students assigned the highest scores to four characteristics of an ideal supervisor [27]. These include academic ability, appropriate guidance, impulsion and motivation of students, and accessibility; among which the last item was assigned the highest score. "Time management" is a basic factor and as mentioned, students' satisfaction decreases with an increase in course period. Derakhshanfar study showed that the most common criterion of choosing a thesis topic for students was its simplicity and being not very time-consuming [28]. Radafshar reported students' dissatisfaction of writing thesis because they thought this as a barrier for their residency entrance exam [18]. Thus, they may prefer to select a supervisor who can help them to finish the thesis procedure faster and easier.

Participants' satisfaction related to their supervisors educational and research experiences was evaluated and it was found that satisfaction increased with an increase in supervisors teaching experience, though this relation was not statistically significant. Accordingly, Nili et al reported that there was no significant difference between the supervisors' guidance and their scientific ranking, i.e. assistant professor, associate professor and full professor [4].

In current study the relation between students' satisfaction and thesis score was checked and there was found no significant relation. However, Attaran et al showed a significant difference between students with "good" and "very good" thesis scores [9]. In Shamsi et al study two thoughts of "absence of a real difference between those who try hard for thesis writing and those who act dishonestly" and "thesis are worthless" were mentioned as students' reasons for scientific dishonesty in writing the thesis [29].

Mizany observed a positive and significant relation between theoretical and practical abilities of students and their satisfaction about supervisors [14]. For the GPA, as an

assessment criteria for theoretical and practical abilities of students, we found that with a decrease in individuals total GPA, their level of satisfaction increased.

During the study, we faced some limitations, and the most important ones were the absence of a standard questionnaire, and lack of a face-to-face contact with participants.

Conclusion

Appropriate thesis supervision is an important and effective factor in increasing students' satisfaction, thus, it is necessary for the high ranked managers pay special attention to all revealed thesis issues. Effective strategies are including holding regular workshops of research methods for faculty members as well as students, providing friendly environment and enough facilities to increase students' satisfaction, recognizing supervisors and students' roles and their limitations in the society.

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