Current status of the academic advisor system in the faculty of dentistry and recommendations for improvement from the perspective of students and professors: A cross-sectional study

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Article Info

Article history:
Received 27 Sep. 2022
Accepted 6 Feb. 2023
Published 27 Mar. 2023

Background & Objective: Academic advising during study helps students to overcome problems, achieve educational goals, and enjoy success. The study aimed to investigate the factors affecting the success and failure of the academic advisor system at Tabriz Faculty of Dentistry from the perspective of faculty members and students.

Materials & Methods: In this cross-sectional study that was conducted in Tabriz Faculty of Dentistry in 2018, two researcher-made questionnaires were used to collect data after the confirmation of their validity and reliability. The questionnaires consisted of 20 questions, which included 10 items related to existing challenges and obstacles and 10 questions on proposed solutions. A total of 80 faculty members were selected via stratified random sampling method and 203 students were selected by simple random sampling. Thereafter, they completed the questionnaires. The results were analyzed in SPSS software (version 17) using descriptive statistics, percentage and mean, and the U-Man-Whitney test.

Results: The most important obstacles from students' perspective were the advisor's unsuccessful experience over the past years (84.1%), followed by the lack of a management system 68.3%. Holding orientation workshops was the most frequent solution suggested by students (85.5%). The most important obstacle from professors' perspective was students' dishonesty with the advisor (86.3%). According to 83.8% of professors, the most practical solution regarding the exciting challenges was the allocation of sufficient time for the student by the academic advisor.

Conclusion: As evidenced by the results of this study, it seems that holding orientation workshops, gaining students' trust, and allocating sufficient time for each student can be effective in improving the academic advisor system.

Keywords: Academic advisor system, Academic advisor, Dentistry, Faculty advisor

Introduction

Universities contribute greatly to the development of student's talents, and academic advisors have a critical role in the achievement of this goal (1). Academic advising during study helps students to overcome problems, achieve educational goals, and enjoy success (2). For various reasons, students are exposed to psychological pressures and situations that require academic advising during their studies (3). These programs are one of the main responsibilities of universities; nonetheless, they sometimes remain neglected (4). One of the major goals pursued in this educational system is to prevent academic failure (dropout, unnecessary change of discipline, academic inadequacy, non-achievement of practical goals of education, and prolonged education).
The research conducted on the psychological, emotional, and social problems of students has illustrated that the presence of an academic advisor can be of great help in overcoming these problems and associated academic failure (5). Faculties of dentistry are among stressful educational environments since, apart from the stresses induced by the clinical environment, students are exposed to educational stress (6). Various domestic and foreign studies have indicated that dentistry students suffer from higher levels of stress compared to their counterparts studying in other fields, even medicine (7,8). One of the most adverse effects of stress on students is impaired learning, which results in academic failure. In addition, when faced with stress, students may exhibit incompatible responses, such as turning to drug abuse and smoking (9). Therefore, academic advisors play a more critical role in dental schools.

In clinical faculties, where professors and students may not be present in a specific place, it is difficult to establish communication as a prerequisite for counseling. In a report in Isfahan Medical School, during one semester, 43% of the students have never met their advisors (10). In recent years, the use of online technologies in education has provided golden opportunities to use new learning and teaching methods (11). A study in Malaysia regarding the provision of virtual counseling services during the Covid-19 pandemic suggested that virtual counseling can be very effective; nonetheless, there are several hardware obstacles in this regard (12).

In many universities across the globe, the academic advisor system is evaluated by different methods (13). Some universities assess the performance and success rate of the academic advisor system based on the changes in students' scores (14). However, the most common method is to use the opinions of students and professors quantitatively and qualitatively (13). A study in Sweden denoted that the academic advisor system was very effective in improving the professional ethics of medical students (15). Nonetheless, a study in Turkish universities revealed that students' referrals to professors were very low (16). In the study by Ebrahimipour et al. in Mashhad, students evaluated the performance status of advisors as relatively favorable (17). These contradictory results prompted us to design the present study to examine the factors affecting the success and failure of the academic advisor system at Tabriz School of Dentistry from the perspective of faculty members and students.

Materials & Methods

Design and setting(s)
This cross-sectional study was conducted at Tabriz School of Dentistry in 2018.

Participants and sampling
The sample size was determined as 213 students and 80 professors based on Morgan's table; nonetheless, an attrition rate of 10% was taken into account. In this way, 234 student questionnaires and 88 faculty member questionnaires were distributed. The inclusion criteria for students were being a student at Tabriz Dental School in the academic year of 2019-2020. Guest students were excluded from the study. The inclusion criteria for professors entailed all the professors of Tabriz Dental School, and the exclusion criteria for professors was a work experience of fewer than two years. Students were selected by simple random sampling, and faculty members were selected via stratified random sampling from all departments of the faculty. A list of all professors and students was prepared, and the desired number was selected from each list based on the random number table.

Tools/Instruments
To collect data, two researcher-made questionnaires were used after confirming validity and reliability. To prepare the initial draft of the questionnaires, the items of the valid questionnaires available in the articles and faculty members' opinions were used. To this end, a query was conducted on PubMed, Scopus, and the Scientific Information Database of Academic Jihad (SID) using the keywords of advisor, academic advisor system, supervisor, and dental students until 2019. The retrieved articles were reviewed for content. Based on the results of the literature review, the initial draft of the questionnaires was prepared.

To evaluate the content validity of the questionnaires, the content validity ratio (CVR) was used. To calculate the CVR, 10 medical and dental education professors were asked to categorize each question based on a 3-point Likert scale of "necessary," "useful but unnecessary," and "unnecessary." The items which were scores > 0.78 were approved. The CVR was obtained in the range of 0.8-0.89 for the items of both questionnaires. To determine reliability, the final questionnaire of students was completed by 20 dental
students, and the final questionnaire of faculty members was completed by 20 dental faculty members. The reliability was obtained and confirmed by determining Cronbach's alpha coefficient of 0.8 in the student questionnaire and 0.83 in the faculty member questionnaire.

Finally, each questionnaire consisted of 20 items in two domains, including 10 items that pertained to the factors affecting the success and failure of the academic advisor system and 10 items on the strategies to improve the implementation of the academic advisor system. Questionnaire answers were set on a five-point Likert scale ranging from "very much" to "very little." In scoring, numbers 5-1 were assigned to the options "very much" to "very little," and the frequency of choosing each option was reported as a percentage.

Data collection methods
Questionnaires were distributed among students and faculty members, and it was stated that the questionnaires would be collected after two days. Questionnaires that were partially completed were excluded from the study.

Data analysis
After collecting the questionnaires, the results were reported using descriptive statistics (frequency and percentage). Mann-Whitney U test was used to compare the opinions of professors and students. Statistical analysis was performed using SPSS software (version 17). The present article has been prepared based on the STROBE statement (18).

Results
The return rates of student and faculty member questionnaires were 87% and 91%, respectively. In the final review, 203 student questionnaires and 80 faculty member questionnaires were included. Of the professors participating in the study, 49 (61.25%) cases were female, and 31 (38.75%) subjects were male. The mean age of the professors participating in the study was 42.5±7.9 years. In terms of academic rank, 54.2% of the professors were assistant professors, 33.9% were associate professors, and 11.9% were professors. Out of 203 students, 106 (52.2%) were female, and 97 (47.8%) were male. The mean age of participating students was 23.6±2.5 years.

The most important reason for the failure of this system from the students' perspective was advisor's unsuccessful experience over the past years (84%). The most important solution proposed by the students to improve this system was holding orientation workshops. The effective factors and suggested solutions regarding the challenges presented to the academic advisor system from students' perspectives are presented in Table 1. Moreover, according to the results of the present study, the most important obstacle from professors' perspective was students' dishonesty with advisors (86%). Regarding the proposed solutions regarding the challenges and obstacles academic advisor system, from the professors' perspective, the allocation of sufficient time for the student by the academic advisor ranked first (84%). Professors' views on challenges, obstacles, and suggested solutions are presented in (Table 1).

Comparing the views of students and professors regarding the influential factors in the performance of the academic advisor system, it can be observed that factors, such as student's dishonesty with the advisor, student's hatred of advice, student's unrealistic expectations of the advisor, and stress and anxiety which were the most effective factors from professors' perspective have received low scores from students' perspectives. According to the result of the Mann-Whitney U test, the most significant difference between professors' opinions and students' perspectives was "students' unrealistic expectations of the professor" (P=0.023).

Regarding the proposed solutions, the most significant difference between professors' opinions and students' perspectives was the "friendly and intimate student-advisor relationship" (P=0.001), and advisors suggested this solution significantly more than students. The results of comparing the opinions of male and female students showed that female students considered "gender compatibility between the advisor and the student" to be more important in comparison with male students (P=0.041). Furthermore, assistant professors were more inclined to agree with "allocation of incentive points for professors" compared to other professors (P=0.37).
Table 1. Factors affecting the success and failure of the academic advisor system and suggested solutions for the challenges

<table>
<thead>
<tr>
<th>Questionnaire items</th>
<th>Frequency from the perspective of students (Number (Percentage))</th>
<th>Frequency from the perspective of faculty members (Number (Percentage))</th>
</tr>
</thead>
<tbody>
<tr>
<td>First part. Factors affecting the success or failure of the academic advisor system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student's dishonesty with the advisor</td>
<td>56 (27.5%)</td>
<td>69 (38.6%)</td>
</tr>
<tr>
<td>Students' unrealistic expectations of the professor</td>
<td>21 (10%)</td>
<td>60 (75.5%)</td>
</tr>
<tr>
<td>Failure of students to visit the professor regularly</td>
<td>107 (50.8%)</td>
<td>53 (66.3%)</td>
</tr>
<tr>
<td>Advisor's unsuccessful experience in the past years</td>
<td>172 (84.1%)</td>
<td>48 (60.1%)</td>
</tr>
<tr>
<td>Student-advisor personality type congruence</td>
<td>66 (32.4%)</td>
<td>42 (52.6%)</td>
</tr>
<tr>
<td>Absence of a management system</td>
<td>138 (68.3%)</td>
<td>56 (70%)</td>
</tr>
<tr>
<td>student-adviser gender congruence</td>
<td>63 (30.8%)</td>
<td>21 (26.3%)</td>
</tr>
<tr>
<td>Teacher strictness</td>
<td>101 (50)</td>
<td>31 (38.8%)</td>
</tr>
<tr>
<td>Stress and anxiety</td>
<td>36 (17.5%)</td>
<td>59 (73.8%)</td>
</tr>
<tr>
<td>Student's hatred of advice</td>
<td>68 (34.2%)</td>
<td>61 (76.3%)</td>
</tr>
<tr>
<td>The second part. Proposed solutions to improve the academic advisor system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existence of a system to monitor student's academic progress</td>
<td>43 (%70.8)</td>
<td>61 (%76.3)</td>
</tr>
<tr>
<td>Students' acquaintance with the academic advisor system</td>
<td>122 (%60)</td>
<td>61 (%76.3)</td>
</tr>
<tr>
<td>Allocation of incentive points for teachers</td>
<td>161 (%79.2)</td>
<td>56 (%70)</td>
</tr>
<tr>
<td>Existence of an explanatory regulation to specify the scope of the advisor's power</td>
<td>154 (%76.7)</td>
<td>66 (582.6)</td>
</tr>
<tr>
<td>The availability of a private place for counselling</td>
<td>156 (76.7)</td>
<td>43 (%53.8)</td>
</tr>
<tr>
<td>Holding orientation workshops</td>
<td>176 (%85.5)</td>
<td>61 (%76.3)</td>
</tr>
<tr>
<td>Motivating teachers and students</td>
<td>151 (%74.2)</td>
<td>64 (%80.1)</td>
</tr>
<tr>
<td>A friendly relationship between student and professor</td>
<td>41 (%20.9)</td>
<td>58 (%72.5)</td>
</tr>
<tr>
<td>Adequate time allocation for each student</td>
<td>139 (%68.3)</td>
<td>67 (%83.8)</td>
</tr>
<tr>
<td>Modeling the scientific and moral character of the advisor</td>
<td>119 (%58.3)</td>
<td>64 (%80.1)</td>
</tr>
</tbody>
</table>

Discussion

Paying attention to the quality of education is very important in today's world. Academic advising is one of the important aspects of medical science education, and it has been shown to improve success in clinical practice, facilitate job selection, and increase research productivity (19). The results of the present study pointed out that the most important factor in the failure of this system from the students' perspective was the advisor's unsuccessful experience over the past years, followed by the lack of a management system. Students' unrealistic expectations of their professor and stress and anxiety were the least important from students' perspective.

In line with the findings of the present research, the results of a study by Keshavarz et al. showed that one of the problems of the academic advisor system at Shiraz University of Medical Sciences was the lack of written and clear instructions for the processes of the academic advisor system (20). The results related to the proposed solutions from the students' perspective determined that holding orientation workshops was the most important. Consistent with the results of the current research, in the study by Hawkins et al., one of the most important solutions to improve the academic advisor system was to hold a familiarization workshop at the beginning of the course (21).

An intervention study by Ganji et al. suggested that holding a training workshop for academic advisors can lead to a change in faculty members' attitudes toward the responsibilities of an academic advisor (22). The allocation of incentive points for professors to encourage them, a private place for the advisor, and an explanatory regulation to specify the scope of the advisor's power held the next ranks. The results of a study in Greece demonstrated that private counseling sessions are more effective than group counseling sessions. Moreover, students are more likely to refer to advisors in more intimate places (23). The existence of a private place for academic advising also received a high score in the present study. The poor performance of professors in various fields and difficult access to academic advisors can play a significant role in student dissatisfaction. Perhaps one of the reasons for these problems is professors' unawareness of their responsibilities and obligations (24). The results of some studies have illustrated that most advisors have acknowledged providing guidance and counseling to students as a responsibility; nonetheless, they are not fully familiar with their duties (21,25). In the same context, the results of a study by Balaghafhari et al. indicated that the lowest mean score pertained to "the amount of help provided by advisors to students in
personal and family, career, research, and even academic issues” (26).

In the study by Kalén et al., advising was more effective in non-academic issues (15). However, in the current study, the item “modeling the scientific and moral character of the advisor” did not get a high score. It seems that the students participating in the present study considered the role of advisors to be limited to academic advising. In this study, from the perspective of the professors, the most important reason for the failure of the academic advisor system was the student's dishonesty with the professor, followed by the student's hatred of advice. In this case, it seems that holding training workshops for advisors can be helpful.

In the study by Mujahid et al. in 2011, the professors' performance in continuous monitoring and follow-up of the student's academic status was evaluated as weak, and the effects of the measures taken by advisors in improving the academic status were moderate. This students' dissatisfaction may be caused by the professors' high workload (27). In agreement with the study by Mojahed et al., in the current research, the allocation of sufficient time for students by academic advisors has been proposed as the most important solution. In the present study, it was shown that female students considered the gender compatibility of the advisor and student to be more important than male students.

The study by Fatemy et al. also indicated that female students are more in need of counseling than their male counterparts (28). In order to attract the participation of subjects in this study, the number of questions in each questionnaire was limited to 10; therefore, one of the limitations of this study was the lack of evaluation of all aspects of the academic advisor system. Moreover, the validity and reliability of the questionnaire used in this study were evaluated in a limited and not complete way. It is suggested to design a study in the future to develop a reliable tool to evaluate the quality of the academic advisor system. It seems that conducting a study that compares the opinions of experienced and less experienced professors regarding the provision of advice and guidance to students in different fields, along with another study that examines the opinions of students in different fields and levels and comparing, can provide more valuable information in this regard.

Conclusion
As evidenced by the results of this study, professors and students have different perspectives on academic advisors and counseling. One of the most important obstacles from students' perspective was the unsuccessful experience of the academic advisor over the past years. However, from the perspective of professors, the most important obstacle was related to students' dishonesty with the professor. Furthermore, the results related to the presentation of solutions from the students' perspective in relation to the advisors indicated that holding orientation workshops is the most important, while from the professors' point of view, the allocation of sufficient time for the student by the advisor was the most important.

Ethical considerations
This study was approved by the Ethics Committee of Tabriz University of Medical Sciences (Code: IR.TBZMED.REC.1397.792). Written informed consent was obtained from all the participants in this project, and they were informed of the confidentiality of their responses.

Acknowledgments
We would like to thank all students and faculty members who have participated in this research.

Disclosure
The authors do not have any conflicts of interest.

Author contributions
Ayla Bahramian: Design, Manuscript editing, Supervision; Katayoun Katebi: Data analysis, Drafting of the manuscript; Rahman Moloodi: Data collection and preparation of the data for analysis; Fatemeh Dabaghi Tabriz: Concept, supervision of the data collection; All authors provided critical comments and revisions to the manuscript, and also read and approved the final manuscript.

Data availability statement
Data is available on request from the corresponding author.

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