

Investigating the Effect of Mentorship Portal on the Interaction of Student and Mentors in Clinical Fields

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Background: University has a great responsibility for the education of students. In order to achieve this target, it must provide academic counseling for students. The aim of this study is to investigate the attitudes of students after using a portal for virtual counseling.

Methods: A questionnaire which is based on the goals that mentioned in mentorship law was designed and validated by educational research committee of Mashhad University of medical sciences. It was presented to the students of dental school (step 1). A web based portal was designed and presented to the students and their mentors. The questionnaire was presented after 6 month of portal usage (step 2) and data were analyzed by SPSS ver. 11.5.

Results: 207 students participated in the first step and 201 in the second one. There was an increase in mentor visit but it was not statistically significant whereas the availability and consultation presented were increased ($p = 0.05$).

Conclusions: It can be concluded; mentorship portal could increase the mentor student interactions but it need to be improved to be a suitable method in mentorship.

Keywords: Mentorship, Student, Teacher, Dentistry, Portal.

درابه مستوى تأثير استخدام المشورة الغير حضورية على كيفية المشورة الطلابية في القسم السريري في طب الأسنان

التصميم و الهدف : من أهداف الجامعات تربية كادر ذو كفاءة عالية و هذا يتطلب تقديم مشاورات تعليمية مؤثرة بشكل مستمر للطلاب. و نظرا إلى العوائق الإلكترونية الموجودة بين الأساتذة الإبتدائيين و الطلاب خاصة في المجال السريري. فإن الهدف من هذه الدراسة هو متابعة استخدام الإبتدائية العيين الحضورية على كيفية الإبتدائية الطلابية.

الأهداف : في البداية تم استخدام إبتدائيات تشمل على الأهداف التي ترتبط إلبدا المشاورات الطلابية حسب المعايير المقترحة من قبل الوزارة.

تم تأييد هذه الإبتدائيات حسب المعايير الإحصائية تم إعطاء هذه الإبتدائيات إلى طلاب السنة الثانية حتى السنة السادسة في كلية طب الأسنان في جامعة مشهد. المرحلة الأولى : بعد تدوين موقع المشاورة الطلابية تم استخدام هذا الموقع من قبل الطلاب و الأساتذة الإبتدائيين لمدة ستة أشهر و من ثم تم إعطاء إبتدائيات إلى الطلاب المرحلة الثانية: تم تحليل المقطبات بواسطة إختبار في دو و ويلكساكسون و أيضا تم استخدام برنامج SPSS 11.5

النتائج : تمت الإجابة من قبل 207 شخص في المرحلة الأولى و 201 في المرحلة الثانية. كان هناك إرتفاع في مستوى الإرتباط مع الأساتذة الإبتدائيين و لكن لم يكن بشكل ملحوظ و لكن كان هناك إرتفاع يعنى به في مجال الحصول على الإبتدائية الإبتدائيين و المدة المطلوبة من قبل الطلاب و إعطائهم المعلومات اللازمة في تتي المجالات ($P < 0.05$)

الإبتدائية : إشارت نتائج هذه الدراسة إلى أن إيجاد هذا الموقع لإعطاء الإبتدائية الغيرحضورية يساعده على رفع مستوى الإرتباط و تأمين أهداف المشاورات الطلابية و لكن يجب تكميل و تطوير سهل إرتقاء هذه البرامج .
الكلمات المفتاح: المشاورة- الطالب - الإبتدائية - طب الأسنان - الموقع .

بررسی تاثیر استفاده از مشاوره غیر حضوری بر کیفیت مشاوره دانشجویی در عرصه های بالینی دندانپزشکی

مقدمه: دانشگاه ها برای نیل به هدف تربیت نیروهای شایسته، نیاز به ارائه مداوم مشاوره تحصیلی موثر به دانشجویان دارند. با توجه به مشکلات ارتباط اساتید مشاور و دانشجویان، خصوصا در محیطهای بالینی، هدف از این مطالعه بررسی تاثیر استفاده از مشاوره غیر حضوری بر کیفیت مشاوره دانشجویی بود.

روش کار: ابتدا پرسشنامه ای با توجه به اهداف تعیین شده از مشاوره دانشجویی در آیین نامه استاد مشاور طراحی شد. روایی این پرسشنامه خود ایفا با کمک شورای پژوهش در آموزش دانشگاه و مسئولین آموزشی مورد تایید قرار گرفت. این پرسشنامه به دانشجویان سال دوم تا ششم دانشکده دندان پزشکی مشهد ارائه گردید. (مرحله ۱) پس از تدوین پورتال مشاوره دانشجویی، دانشجویان و اساتید مشاور آنها به مدت ۶ ماه از پورتال طراحی شده استفاده کردند. سپس، پرسشنامه مجددا به دانشجویان داده شده (مرحله ۲) و داده ها با آزمون خی دو و ویلکساکسون مورد تحلیل قرار گرفت. برای تحلیل داده از نرم افزار SPSS 11.5 استفاده شد.

نتایج: تعداد 207 نفر در مرحله اول و 201 نفر از آنها در مرحله دوم به پرسشنامه ها پاسخ دادند. میزان ارتباط با استاد مشاور اندکی افزایش داشت ولی این افزایش معنی دار نبود. در همین حال میزان دسترسی به استاد مشاور در زمانهای مورد نیاز دانشجو و ارائه اطلاعات لازم در برخی حیطه ها به صورت معنی داری افزایش پیدا کرد ($p < 0.05$).

نتیجه گیری: در شرایط این مطالعه نشان داده شد که ایجاد پورتال مشاوره جهت مشاوره غیر حضوری در ارتقاء ارتباط و برآوری اهداف مشاوره دانشجویی تاثیر دارد ولی نیاز به راهکارهای تکمیلی جهت ارتقاء این برنامه وجود دارد. **واژه های کلیدی:** مشاوره، دانشجوی، استاد، دندانپزشکی، پورتال.

ڈینٹل کلینیکل سطح پر غیر حضوری ایڈوایٹرز سے استفادہ کرنے کے اثرات کا جائزہ.

بیگ گروئنڈ: یونیورسٹیوں کا هدف معاشرے کو بہترین افرادی قوت فراہم کرنا ہے جس کے لئے طلباء کو مسلسل مشاورت کی ضرورت پڑتی ہے لیکن چونکہ طلباء اور استاد مشاور کے درمیان رابطوں میں کچھ مسائل ہیں بالخصوص کلینیکل سطح پر تو ہم نے یہ تحقیق انجام دی ہے کہ غیر حضوری مشاورت کے طلباء پر کیا اثرات پڑتے ہیں۔

روش: سب سے پہلے طلباء کی مشاورت کے اہداف کو معین کیا گیا جنہیں استاد مشاور کی ذمہ داریوں میں رکھا گیا ہے۔ اس سوالنامے کی تائید مشہد یونیورسٹی آف میڈیکل سائنس میں تحقیقات کونسل اور اساتذہ نے کی تھی۔ یہ سوالنامہ دوسرے اور چھٹے سال کے ڈینٹل میڈیسن کے طلباء کو دئے گئے تھے۔ یہ پہلا مرحلہ تھا اس کے بعد طلباء کے لئے مشاورت کی ایک ویب سائٹ بنائی گئی، اس پورٹل سے طلباء اور اساتذہ نے چھ ماہ تک استفادہ کیا اس کے بعد دوسرے مرحلے میں طلباء کو دوبارہ سوالنامہ دیا گیا۔ اس کے بعد ایس پی ایس ایس سافٹ ویئر سے ڈیٹا کا تجزیہ کیا گیا۔

نتیجے: پہلے مرحلے میں دوسو سات اور دوسرے مرحلے میں دوسو ایک طلباء نے شرکت کی تھی، ان سے پتہ چلتا ہے کہ استاد مشاور سے طلباء کے رابطے میں ذرا اضافہ ہوا تھا اسی طرح جب طلباء کو ضرورت ہوتی تھی استاد مشاور تک طلباء کی دسترسی بھی بہتر ہوئی تھی

سفارش: اس تحقیق سے پتہ چلتا ہے کہ طلباء کی مشاورت کے لئے ویب سائٹ بنانا ان کے لئے مفید واقع ہوا ہے البتہ اس پروگرام کو بہتر بنایا جاسکتا ہے۔

کلیدی الفاظ: مشاورت، طلباء استاد، ڈینٹل، پورٹل۔

INTRODUCTION

Universities have a crucial role in training and educating the students. It is essential to provide educational counseling by the teachers in order to reach the mentioned goal. The studies conducted on the psychological, emotional and social problems of the students indicate the essence of counseling (1). One of the main responsibilities of faculty members is to counsel the students that are mentioned in the 44 article of employment regulations of faculty members of medical sciences (2).

Different studies have confirmed the influence of educational counseling on academic achievement (3-7). Furthermore, students' satisfaction of educational counseling is determined as one of the factors of academic achievement (8,9). Despite the need for consultation, different researches studied the status of consultation at universities and reported that unfortunately, the students do not recognize their teachers as the reliable source to meet their needs during education (10- 12).

Professional counseling was done by Frank Parsons for the first time in America in 1908. He established a professional counseling office to help the youth to find a career, consequently, he is known as the father of career counseling. The national association of career counseling was established in America in 1913 that had great impact on the enhancement of schools. The law that was enacted in England in 1944, counseling was predicted. At the beginning of 1945, the centers of professional counseling were distributed in the ministry of education in France and since 1960 there was thorough and ongoing cooperation and communication between all counseling centers for the youth. (13) In Iran, counseling and guidance commenced in 1958 and 1971 and lastly the final mentor regulation was adopted and notified in 2009 (14).

The counseling center of university can provide a wide and varied range of services including notices, contributing to grow, compatibility, decision making, solving educational, family and communications problems of students and the staff of the university (15). The studies have shown that the clinical disciplines in which the students and teachers might not be stable in the place, the primary condition to provide counseling is to make contact. A report conducted in the Medical University of Isfahan during a semester showed that 43 percent of students have had no contact and meeting with their mentors (16). Another study conducted in Kerman presented that either the students did not know the duties and status of their mentors or the teachers did not perform their duties very well (17).

The study of Dehnavieh et al, it was indicated that there should be programs to empower the mentors in order to make a good communication and have a successful counseling (18).

In accordance with the expansion of the internet and social networks, the comprehensive scientific roadmap of the country has considered the use of the facilities of internet in order to upgrade the time and quality efficiency. Since portals are created for the web environments, they are accessible with a standard browser at any time and place and

could provide services and education appropriately that is very cheap and flexible with the condition of the users. (19) The students of dental school have a problem to make connections with their teachers. It seems that the internet could facilitate and increase the communication. Establishing a portal is a new method to make a virtual environment that could be an influential solution to enhance communication and counseling and teachers' supervision. The purpose of the current study was to implement and investigate the impact of virtual environment for the upgrade of counseling to the students in clinical environments.

METHODS

Firstly, a questionnaire was designed in accordance with the determined purposes of mentor regulations that included the requirements of interactions between the mentor and students in the regulations (annex 1). Then, the validity was assessed by the supervisor of mentors of the school and educational deputy and the Bureau chief of Council of Education and Research Development of University. The reliability was assessed by test-retest in a group of 10 students. After the confirmation of the reliability, Cronbach Alpha – 84% was presented to the students of the second and sixth years of dental school of Mashhad University of Medical Sciences (Step 1).

In cooperation with the Cultural Department of the university, the portal was designed with a social network approach to make influential communication between students and teachers. Then, the information technology center conducted some adjustments and finally became part of the portal of students and teachers in order to make a social network communication.

Then, two workshops were held for the teachers in order to explain how to use the portal and the students were informed about the facilities of the portal.

After the establishment of the portal, the students and teachers used the portal for six months. Then, the questionnaire was distributed among the students (step 2) and the data were analyzed by Chi-square and Wilcoxon tests in the SPSS (11.5).

RESULTS

In the present study, 207 people completed the questionnaire before using the portal (step 1) and 201 students filled the questionnaire after using the portal (Step 2).

The rate of interaction with the mentor in the steps is presented in table 1. There was no significant relationship in accordance with the Chi-Square test ($p>0.05$).

The number of the contact of the mentor with the students is presented in table

The Chi-Square test showed no significant relationship ($p>0.05$).

The availability of the mentor during the completion of course selection form or the confirmation is presented in table 3.

Wilcoxon matched Test showed significant relationship ($p<0.05$).

The level of the mentor' attempts to introduce the city and the courses of the university from the students' perspective is

| Table 1. The number of referral to the mentor in each step | | | | |
|--|--------|---------------------|--------|---------------------|
| The number of referral to the mentor in each step | Step 1 | | Step 2 | |
| | number | Frequency (percent) | Number | Frequency (percent) |
| Did not have | 140 | 76.5 | 136 | 74.8 |
| once | 27 | 14.8 | 44 | 18.7 |
| twice | 10 | 5.5 | 7 | 3.8 |
| Three times | 4 | 2.2 | 4 | 2.2 |
| Four times | 0 | 0.0 | 0 | 0.0 |
| Five times | 0 | 0.0 | 0 | 0.0 |
| Six times | 2 | 1.1 | 1 | 0.5 |
| Total | 183 | 100 | 182 | 100 |

| Table 2. The number of mentor's contacts with the student in each step | | | | |
|--|--------|---------------------|--------|---------------------|
| The number of mentor's contacts with the student in each step | Step 1 | | Step 2 | |
| | Number | Frequency (percent) | Number | Frequency (percent) |
| Did not have | 164 | 91.1 | 165 | 91.2 |
| Once | 10 | 5.6 | 10 | 5.5 |
| Twice | 6 | 3.3 | 4 | 2.2 |
| Five times | 0 | 0.0 | 2 | 1.1 |
| Total | 180 | 100 | 181 | 100 |

| Table 3. The level of availability of the mentor in each step | | | | |
|---|--------|---------------------|--------|---------------------|
| The level of availability of the mentor | Step 1 | | Step 2 | |
| | Number | Frequency (percent) | Number | Frequency (percent) |
| Very low | 61 | 31.6 | 43 | 22.2 |
| low | 39 | 20.2 | 31 | 16.0 |
| Average | 65 | 33.7 | 75 | 38.7 |
| Very | 24 | 12.4 | 40 | 20.6 |
| Very much | 4 | 2.1 | 5 | 2.5 |
| Total | 193 | 100 | 194 | 100 |

presented in table 4. The Wilcoxon matched Test showed significant relationship in this case ($p < 0.05$).

The level of the mentor's attempt to introduce the rules and procedures of research, education, and cultural programs is depicted in table 5.

The Wilcoxon matched Test showed significant relationship ($p < 0.05$).

The level of counseling about future career and education in the two steps is presented in table 6. The Wilcoxon matched Test showed significant relationship ($p < 0.05$).

The level of counseling in the educational programming and study methods is shown in table 7. The Wilcoxon Matched Test showed significant relationship ($p < 0.05$).

The level of counseling in the fields of extra-curriculum activities and also scientific and cultural programs is

presented in table 8. There was significant relationship in accordance with the Wilcoxon Matched Test ($p < 0.05$).

The level of the mentors' intervention in the recognition and solving problems that are influential on education is shown in table 9. There was significant relationship regarding the Wilcoxon Matched Test ($p < 0.05$).

DISCUSSION

The present study determined that most of the students did not meet their mentor before using the portal. Furthermore, it was shown that the use of the portal has increased the connection with the mentor to some extent. However, it was not statistically significant. In the study of Salimeh and his colleagues conducted in Isfahan in 2010, it concluded that 28.9% of the students had no meeting with their mentors. (16)

Table 4. The level of mentor's attempt to introduce the city and courses of the university from the students' perspective

| The level of mentor's attempt to introduce the city and courses of the university from the students' perspective | Step 1 | | Step 2 | |
|--|--------|---------------------|--------|---------------------|
| | Number | Frequency (percent) | Number | Frequency (percent) |
| Very low | 119 | 64.7 | 91 | 47.9 |
| low | 34 | 18.5 | 56 | 29.5 |
| Average | 28 | 15.2 | 33 | 17.3 |
| Very | 2 | 1.1 | 8 | 4.2 |
| Very much | 1 | 0.5 | 2 | 1.1 |
| Total | 184 | 100 | 190 | 100 |

Table 5. The level of mentor's attempt to introduce the rules, education and research procedures and cultural activities in each step

| Mentor's attempt to introduce the rules, education and research procedures and cultural activities | Step 1 | | Step 2 | |
|--|--------|---------------------|--------|---------------------|
| | Number | Frequency (percent) | Number | Frequency (percent) |
| Very low | 115 | 62.5 | 86 | 45.3 |
| low | 38 | 20.7 | 64 | 33.7 |
| Average | 28 | 15.2 | 37 | 19.4 |
| Very | 1 | 0.5 | 3 | 1.6 |
| Very much | 2 | 1.1 | 0 | 0.0 |
| Total | 184 | 100 | 190 | 100 |

Table 6. The level of counseling in future carrier and continuing education from the students' perspective in each step

| The level of counseling in future carrier and continuing education | Step 1 | | Step 2 | |
|--|--------|---------------------|--------|---------------------|
| | Number | Frequency (percent) | Number | Frequency (percent) |
| Very low | 121 | 65.8 | 96 | 50.5 |
| low | 26 | 14.1 | 56 | 29.5 |
| Average | 25 | 13.6 | 27 | 14.2 |
| Very | 8 | 4.3 | 10 | 5.3 |
| Very much | 4 | 2.2 | 1 | 0.5 |
| Total | 184 | 100 | 190 | 100 |

The few number of referral shows that counseling has not been successful in the university.

Our study presented that 91.1% of the students have had no contact with their mentor. Moreover, it was determined that the portal could not make any influential change in this respect. This result could be due to mentors' lack of knowledge about their duties to the students or could show the need of follow-ups and the use of incentive and warning factors. Similar to the present study, Hazarveeh conducted a study in Hamadan and reported mentors' lack of knowledge about their responsibilities and were not successful in providing counseling to the students. (20)

The current study determined that after the use of the portal, the rate of availability of the teacher in the required times has increased which was statistically significant. This result shows

that one of the reasons that the students do not refer to their mentors is that they are not available at the required times. This problem could be solved with the establishment of the portal and the students can easily reach their teachers. In the study of Adhami and his colleagues in Kerman, the students have stated that they require their teachers mostly when they fill in forms and have official correspondence (17).

The results show that the mentors have been more successful in introducing the city and the university, also the rules and education, research and culture procedures after the use of the portal that was statistically significant. In the study of Adhami, most of the students believed that insufficient counseling was the cause of their educational problems. (17) It seems that using non-verbal methods could be influential in this respect.

| Table 7. The level of mentor’s counseling about educational programming and study methods from the students’ perspective in each step | | | | |
|--|---------------|---------------------|---------------|---------------------|
| The level of mentor’s counseling about educational programming and study methods | Step 1 | | Step 2 | |
| | Number | Frequency (percent) | Number | Frequency (percent) |
| Very low | 120 | 65.2 | 55 | 28.9 |
| low | 29 | 15.8 | 73 | 38.4 |
| Average | 27 | 14.7 | 40 | 21.1 |
| Very | 7 | 3.8 | 19 | 10.0 |
| Very much | 1 | 0.5 | 3 | 1.6 |
| Total | 184 | 100 | 190 | 100 |

| Table 8. The level of mentor’s counseling about extra-curriculum programs and scientific and cultural activities | | | | |
|---|---------------|---------------------|---------------|---------------------|
| The level of mentor’s counseling about extra-curriculum programs and scientific and cultural activities | Step 1 | | Step 2 | |
| | Number | Frequency (percent) | Number | Frequency (percent) |
| Very low | 124 | 67.4 | 56 | 29.5 |
| low | 37 | 20.1 | 80 | 42.1 |
| Average | 22 | 12.0 | 41 | 21.6 |
| Very | 0 | 0.0 | 13 | 6.8 |
| Very much | 1 | 0.5 | 0 | 0.0 |
| Total | 184 | 100 | 190 | 100 |

| Table 9. The level of mentor’s intervention in recognizing and solving the non-educational problems that influence students’ education from the students’ perspective | | | | |
|--|---------------|---------------------|---------------|---------------------|
| The level of mentor’s intervention in recognizing and solving the non-educational problems that influence students’ education | Step 1 | | Step 2 | |
| | Number | Frequency (percent) | Number | Frequency (percent) |
| Very low | 126 | 68.1 | 59 | 30.9 |
| low | 37 | 20.1 | 75 | 39.3 |
| Average | 18 | 9.7 | 43 | 22.5 |
| Very | 3 | 1.6 | 13 | 6.8 |
| Very much | 1 | 0.5 | 1 | 0.5 |
| Total | 185 | 100 | 191 | 100 |

The level of counselling about the future career and continuing the education significantly increased via the use of the portal. In the study of Mojahed and his colleagues, the teachers were weak in the assessment in the following arenas: continuous monitoring, providing a timetable for personal or group counseling (7).

In the present study, the counselling about educational programming and study methods significantly increased. In the study of Adhami, the least satisfaction of the students was about the mentor’s performance in “review of academic failure”, “encouraging the students meet academic weaknesses” and “review of academic achievement” (17).

In our study, the students’ satisfaction about recognizing and solving the non-educational problems that are influential on

education increased significantly after the use of the portal.

In the study of Aghajani, most of the students have declared that the mentors should concern about education, family, economy and social problems that are influential on the academic failure but they were not satisfied with their mentors in these respects (21).

It sounds that the use of the portal for counseling is an appropriate method in accordance with the cultural limitations with the university, however, it has not enhanced the interaction with the mentor to an acceptable level that could be due to problems in the culture of the use or shortage of facilities. On the condition that the situation changes, it is problem to upgrade.

As it is presented in the study of Krist, people and patients

are more interested in electronic counseling than face to face counseling. Furthermore, it is reported that in the electronic counseling, behavioral changes and the reduction of risky behavior is more. They have stated that the Electronic Health Counseling is more effective and efficient (22).

However, in the study of Banabi, the students declared that it is easier and faster to access the up-dated information in the electronic environments, the use rate of electronic environments is not very common in the education and the culture of the university (23).

Although the present study focuses on active counselling to the students and the use of an influential method to enhance student-teacher interactions, various studies have presented the impact of teaching methods and the use of interactive teaching methods to upgrade learning along with the enhancement of teacher-student influential interaction (26-24).

Regarding the mentioned results and in accordance with the importance of counselling to the students to solve different problems, it is essential to focus on the empowerment of counselling center in the university. In addition, it is

recommended to solve the problems of the portal and use it as a social network in the university. It is suggested to have incentive factors to enhance the culture of using the portal. In accordance with the viewpoint of the students of dental school of Mashhad University of Medical Sciences, counselling is provided in low level and the mentors are not successful in counselling. The present study determined that using the portal could enhance some aspects to some extent, however, it did not increase statistically significant.

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