

Study skills and habits in Shiraz dental students; strengths and weaknesses

Ladan Zarshenas, Shahla Momeni Danaei¹, Elham Mazarei², Hooman Zarif Najafi³, Mahsa Shakour⁴

Department of Nursing, School of Nursing and Midwifery, Quality Improvement in Clinical Education Research Center, Student Research Committee, ¹Department of Orthodontics, Orthodontic Research Center, ²Department of Medical Education, ³Department of Orthodontics, Educational Research and Development Center, School of Dentistry, Shiraz, ⁴Medical Education Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

ABSTRACT

Introduction: The dental students, the same as other students, during their academic courses are required to learn a wide range of scientific subjects. Obviously, choosing the inappropriate method of study leads to confuse and disenchantment of students and it causes wasting of their energy. The purpose of this study was to assess the existing strengths and weaknesses of the skills and study habits in Dental Students of Shiraz University of Medical Sciences in 2009-10. **Materials and Methods:** In this cross-sectional study, all of the dental students ($n = 274$), who studied at the time of study at all levels in the academic year of 2009-10, were selected by the census. Data were collected by using the Huston University questionnaire consisted of two parts of demographic questions and 64 specific areas of study skills in eight domains of time management, concentration/memory, study aids/note taking, test strategies, information processing, motivation, self-assessment/reading, and writing skills. Following the retranslation of the questionnaire, the validity was confirmed by using the content validity method. The reliability was obtained by using the Cronbach's Alpha of 0.92. The data were analyzed with SPSS software version 17 and using analytical statistic tests. **Results:** Students who have previously participated in the study skills workshops had stronger skills in comparison with the students who had not participated in these workshops. Time management skills ($P = 0.04$), motivation ($P = 0.0001$) and information processing ($P = 0.03$) in students with professional status were in a more favorable position and showed significant differences in terms of educational levels. The study skills mean score of the students living in student housings in comparison with the other students were significantly higher ($P = 0.04$). Marital status showed no significant differences in reading skills. **Conclusion and Recommendations:** The review of study skills in the undergraduate and post-graduate dental students indicated

that the residents had higher reading skills. By recognizing the existing strengths and weaknesses and holding programs through counseling centers can develop the study skills in the students.

Key words: Dental students, study habits, study skills

Address for correspondence: Dr. Shahla Momeni Danaei, Department of Orthodontics, School of Dentistry, Orthodontic Research Center, Member of Center for Educational Research and Development, Shiraz University of Medical Sciences, Shiraz, Iran. E-mail: smomenidanaei@yahoo

Access this article online	
Quick Response Code:	Website: www.jehp.net
	DOI: 10.4103/2277-9531.131931

Copyright: © 2014 Zarshenas L. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

This article may be cited as: Zarshenas L, Danaei SM, Mazarei E, Najafi HZ, Shakour M. Study skills and habits in Shiraz dental students; strengths and weaknesses. J Edu Health Promot 2014;3:44.

INTRODUCTION

Study skills are competencies that help the students for acquisition, organizing, synthesizing, recalling, and using the ideas and information.^[1] These skills included a range of skills and synchronized cognitive processes that play a role in increasing the effectiveness and efficiency of learning. In fact, it can be said that these skills are the basis of merit in university students.^[2] The quality and quantity of medical materials learning are influenced by a variety of factors such as the general level of intelligence, physical – mental-health, motivation, and interest in the subject, educational facilities and educational assistance.^[3] Studying is a complex activity and its capacity varies from one person to another.^[4] Thus, the method of studying should be chosen through the selection and composition of texts and different ways of reading.^[5] The fruitful study is related to two factors, the interest of the student in studying the content and the use of appropriate reference books.^[6] Several studies have shown that failure in learning and study skills can affect all the benefits of a good learning environment. On the other hand, in the case of efficiency, it can compensate many of the potential failures of the educational environment, motivation, personality, and physical – mental-health.^[3] Realizing the fact, which learning is largely dependent on the existing issues of life in the environment around us can enable to have a closer look as a verifiable event.^[4] Nowadays, the role of application methods and a variety of study skills in different parts of the world have been approved in the students to learn better. Many studies have shown the relationship between study skills and academic success.^[1] Stark found in his study that the participation of students in academic seminars in the field of study skills increased maintaining the scientific contents.^[7] In a conducted study in our country in 21 Universities of Medical Sciences, it was found that more than 32% of the students suffered from extreme poverty in study skills and this disability has been affected their academic grade point average.^[3] In a study conducted by Reid *et al.*, having a regular program and deep study with concentration were introduced as influential factors in medical students to learn better.^[8] In another study by Shams *et al.*, problems related to learning skills and lack of familiarity of the students with effective methods of studying were found to be effective in the study failure of the studied students.^[9] In a conducted study on students by Masoudi, *et al.*, there was a direct correlation between academic performance and study methods.^[10] Teaching the study skills and techniques in many universities at the entrance stage of the students considered essential for developing their learning and many universities in the world performed the required courses.^[8] Wernersbach research at the Utah State University (2011) entitled “the impact of study skills courses on academic self-efficacy” showed that the students who had passed the study skills course had higher academic self-efficacy compared with the students who had not passed the course.^[11] A qualitative study, which was conducted by Allen on American-African students of the University of Louisiana (2003), indicated that the students had positive perceptions from the effectiveness of study skills

course.^[12] Since dental students encountered with a high volume of scholarly literature during their education and difficulty to commit new contents to memory, learning these scientific materials requires spending more time in addition to have a regular program. Obviously, choosing the incorrect method of study provides the students with academic confusion and disenchantment. It also causes wasting of energy and a tendency to study by using incorrect methods. It seems that by recognizing the above provided contents, it is required to consider and plan in order to identify and improve the related methods. Hence, the purpose of this study was to review the skills and study habits in Dental Students of Shiraz University of Medical Sciences in the 2009-10 academic year in order to plan for enhancing the strengths and minimizing the weaknesses.

MATERIALS AND METHODS

In this descriptive cross-sectional study, the population included 274 students selected by census. They were enrolled at Shiraz Faculty of Dentistry. The inclusion criteria were included to be Dental Students of Shiraz University in the 2009-10 academic year and willingness to participate in the research. The questionnaire of University of Houston was used in this study.^[13] After translating, its validity was confirmed by using the translate retranslate method and content validity was confirmed by the panel formation of expert groups. They were asked to investigate in order to localize the content of the questionnaire. The questionnaire was consisted of two parts, demographic characteristics (gender, age, marital status, semester, residence and educational level) and 64 specific questions in 8 domains of time management, concentration/memory, study aids/note taking, test strategies, information processing, motivation, self-valuation/reading, and writing skills (each domain with 8 questions). The questions were graded with a 4 degrees scale as never, sometimes, often or always, from 1 to 4 score. The maximum score was 32 and the lowest one was eight in each domain. Higher scores in each domain indicated the more favorable position of the student in that domain. The data were entered in SPSS software version 17 and the findings of study were analyzed by using descriptive statistics (mean, standard deviation and median) and analytical statistics. In order to compare the mean scores for the different domains, parametric tests were used (ANOVA and *t*-test) and non-parametric tests (Mann-Whitney to compare the two genders and the Kruskal-Wallis test for the comparison of educational levels and the residence place). Kolmogoroff Smirnov test was indicated that all of the domains except the domain of test strategies and writing skills had normal distributions. The significance level of $P \leq 0.05$ was considered in all of the cases.

FINDINGS

The number of 274 dental students completed the questionnaires. Therefore, the percentage of questionnaire response was 100%. There were 165 (60.3%) female and 109 (39.7%) male students. 204 (73%) students were single

and 70 (27%) were married. 164 (59.4%) students were aged 18-24 years old, 90 (32.6%) students were 24-30 years old and 20 others were older than 30 years. 166 (60.2%) students were living with their parents, 96 (36%) in dormitories and 10 (3.8%) with friends in a rented housings. 196 (71%) students were studying in undergraduate level and 78 (29%) students at the postgraduate level (assistance). Among the total participants, 12 (4.3%) students were attended in the study skills workshops. Reviewing the mean scores of the eight skills showed that the writing skill had the lowest score (2.22 ± 0.49) and information-processing skill (2.79 ± 0.45) had the highest mean score and standard deviation. Marital status had no significant relationship with none of the domains of study skills. Comparing the mean scores of the two genders by using the *T*-test showed that male students in data processing and female students in time management skills, and study aids/note taking had higher mean scores. Both genders had the same situation in self-assessment/reading skills [Table 1].

Comparison of the obtained mean scores regarding the level of education by Kruskal-Wallis test and the independent mean test indicated that the mean scores of study skills in post-graduate students were higher than the undergraduate students were. These differences were significant in the skills of time management ($P = 0.04$), information processing ($P = 0.03$) and motivation ($P = 0.00$) [Table 2].

Comparison of the mean score of time management skill based on the level of education indicated that in the first semester of each academic year, the mean and standard deviation score of time management skill was greater than the second semester in each academic year. Time management skill mean and standard deviation scores ($P = 0.02$) and motivation ($P = 0.002$) according to different age groups also showed significant differences [Table 3].

In investigating the relationship between the residence with note-taking skill while studying and information processing (by using the *post hoc* tests), it was shown that in the field of note taking during the study, the students who lived with their families had higher mean scores (0.21 ± 0.66) ($P = 0.001$). In the field of information processing, the students living in student housings showed higher mean scores (0.81 ± 0.31) ($P = 0.01$). It is noteworthy that the *post hoc* test was performed within the domains, which their ANOVA results were statistically significant. The mean score and standard deviation of the domain of information processing in those who had a history of participating in study skills workshops was 3.14 ± 0.43 and in those who had not participated in study skills workshops was equal to 2.81 ± 0.45 . *T*-test showed a significant difference between the two groups.

DISCUSSION AND CONCLUSION

In this cross-sectional study, which was conducted over 274 Dental Students of Shiraz Medical University with the aim of evaluation of the skills and study habits of students, it was

indicated that the study skills based on gender, educational levels, semester and having participated in study skills workshops had statistically significant differences. Regarding the results of this study, the superiority of the male students in data processing and the girls excel in time management

Table 1: Comparison of the mean and standard deviation in different areas of skills and study habits in dental students according to gender in 2008-2009

Skills	Post-graduate		Under-graduate		F	P
	N=78 boys		N=165 girls			
	Mean	±SD	Mean	±SD		
Time management	2.56	0.46	2.70	0.42	6.88	0.01
Concentration/ memory	2.56	0.46	2.63	0.41	0.00	0.99
Aid study/ note taking	2.45	0.55	2.75	0.47	22.83	0.001
Test strategies	2.75	0.46	2.70	0.45	0.70	0.40
Information processing	2.86	0.45	2.75	0.44	4.53	0.03
Motivation	2.48	0.54	2.54	0.54	0.56	0.54
Self-assessment/ reading skills	2.69	0.39	2.69	0.47	0.00	0.94
Writing skills	2.16	0.47	2.26	0.50	2.52	0.11

SD = Standard deviation

Table 2: Comparison of the mean and standard deviation in different areas of skills and study habits in dental students according to their educational levels (2009-2010)

Skills	Post-graduate		Under-graduate		F	P
	N=78		N=196			
	Mean	SD	Mean	SD		
Time management	2.73	0.44	2.61	0.44	3.99	0.04
Concentration/ memory	2.63	0.42	2.62	0.40	0.34	0.85
Study aids/ note taking	2.69	0.58	2.61	0.50	1.38	0.24
Test strategies	2.80	0.47	2.69	0.44	3.37	0.07
Information processing	2.88	0.47	2.76	0.43	4.33	0.04
Motivation	2.74	0.45	2.43	0.54	20.42	0.00
Self-assessment/ reading skills	2.76	0.41	2.66	0.45	2.87	0.09
Writing skills	2.28	0.46	2.19	0.50	1.79	0.18

All differences were significant at the level of 0.05, SD = Standard deviation

Table 3: Comparison of the mean scores of two areas of time management and motivation according to different age groups

Age groups	18-24		30-35		31-36		37-42	
	years old		years old		years old		years old	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Time management	2.60	0.44	2.66	0.45	2.73	0.30	3.25	0.19
Motivation	2.44	0.53	2.62	0.54	2.64	0.44	2.95	0.38

SD = Standard deviation

skills and study aids/note taking while reading could be due to the individual differences between boys and girls, and cultural and social issues. These findings were inconsistent with the results of Nourian, *et al.* study. In that study, the male students had better time management skills compared with female students.^[5] However, regarding the concentration skill, it was slightly more in male students comparing to female students, which was similar to the current study. This difference was not significant in the present study. By investigation of the obtained scores from the skills and study habits based on the semester, the results showed that in the first semester of each academic year, the time management skills were higher than the second semester of the academic year. This fact could be due to mental fatigue of the students in the second semester of the academic year from the pressure and high volume of educational materials. On the other hand, time-management and motivation skills in different age groups were revealed significant difference. Moreover, time management and motivation skills were more by raising the age. It seems that the students with more time of studying would gain a good experience to manage their time. In another study, in addition to point and focus on these problems, it was proposed some solutions including the reduction of the study interruptions, a particular weekly schedule and the proper timing in everyday activities.^[14] The review of the obtained scores in skills and study habits based on educational levels showed that the postgraduate students generally had better condition than the undergraduate students had. This difference in time management, information processing and motivation skills were significant. Regarding these cases, it seems that by increasing the time of study in the postgraduate students, their experiences would be raised in these three areas. Thus, the presentation of skills in one package could be more useful for undergraduate courses. By reviewing the relationship between the residence and note taking during the study and information processing skills, it was shown that the students who live with their families compared with students in the dormitories were in a better condition. This finding could be due to reasons such as poor housing environment, because the students living in student housings had also better conditions. However, in general the undergraduate students need more training in this area. The review of the obtained scores on skills and study habits according to the participation in study skills workshops indicated that information processing skill in students who have previously participated voluntarily in study skills workshops have been formed stronger. The finding of the importance of planning and designing workshop courses on arrival at the university can help the students in better learning during their educational period.

CONCLUSION AND RECOMMENDATIONS

The review of study skills in undergraduate and post-graduate dental students indicated that the post-graduate students had a higher level of study skills. This issue requires performing careful planning in order to promote the study skills' levels in

undergraduate students. The day-by-day increasing volume of scholarly literature in this field of study necessitates the need for further study. Regarding the obtained higher scores in students who had attended in the mentioned workshops showed the requirement of necessary planning by the educational authorities in the faculty. It can be also effective in promoting the students' skills in post-graduate and undergraduate levels.

REFERENCES

1. Proctor E, Prevatt F, Adams K, Hurst A, Petscher Y. Study skills profiles of normal-achieving and academically-struggling college students. *JCS* 2006;47:37.
2. Dawson C, Wattam D. Student and teacher perceptions of benefits of study skills. ProQuest: University of North Carolina Charlotte; 2008. p. 21.
3. Kooshan M, Heidari A. Assess of study skills in students of Sabzevar University of Medical Sciences. *J Sabzevar Univ Med Sci* 1385;13:185-9.
4. Nabavi SJ, Asgarian M. Influential factor on learning among students of Azad University. *J Med Islamic Azad Univ* 1383;14:41-50.
5. Nourian A, Mousavinasab N, Fahri A, Mohammadzadeh A. Medical Students' study skills and habits in Zanjan University of Medical Sciences. *IJME* 2006;6:101-6.
6. Saif A. ch. 17. Educational psychology. 14th ed. Tehran: Agah Publisher; 1384. p. 488-521.
7. Starke MC. Retention, bonding, and academic achievement: Effectiveness of the college seminar in promoting college success, 2006. Available from: http://eric.ed.gov/ERICWebPortal/Home.portal?_nfpb=true and _pageLabel=RecordDetails and ERICExtSearch_SearchValue_0=ED374741 and ERICExtSearch_SearchType_0=eric_accno and objectId=0900000b80124cf. [Last cited 2006 Aug 10].
8. Reid WA, Duvall E, Evans P. Can we influence medical students' approaches to learning? *Med Teach* 2005;27:401-7.
9. Shams B, Farshid far M, Hasan Zadeh A. Effects of advice on improving the performance of students with academic failure. *IJME* 1379;1:35-9.
10. Masoudi M, Saki M, Farhadi A. Investigation of relationship between study skill and academic performance. The Second Conference of students and mental health of Lorestan medical education. Lorestan 1381.
11. Wernersbach BM. The impact of study skills courses on academic self-efficacy [dissertation]. Utah: Utah State University; 2011. p. iii.
12. Allen JA. The perceptions of effects of a study skills course, "Dynamics of effective study" on the academic achievement of African American students at a dedicated academic magnet high school [dissertation]. The department of Educational Leadership, Research and Counseling. Louisiana: Louisiana State University; 2003. p. viii.
13. Available from: http://http://prtl.uhcl.edu/portal/page/portal/COS/Self_Help_and_Handouts/STUDY_SKILLS_QUESTIONNAIRE [Last accessed on 2013 Feb 02].
14. Peniston LC. Strategies on time management for college students with learning disabilities, 1994. Available from: http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true and _ and ERICExtSearch_SearchValue_0=ED376396 and ERICExtSearch_SearchType_0=no and accno=ED376396 [Last accessed on 2013 Feb 28].

Source of Support: Shiraz University of Medical Sciences, Shiraz, Iran, **Conflict of Interest:** None declared