

## Evaluation of factors Affecting Student Concentration in Classroom in Dental student of Shahid Sadoughi university of Medical Science in 2015

<sup>1</sup>Dr Hadi salimi, Assistant Professor; Shahid Sadoughi Univ Med Sci, Fac Dent, Dept Prosthodont, Yazd, Iran

<sup>2</sup>Darioush Shirvanizade, student of Shahid Sadoughi Univ Med Sci, Fac Dent, Yazd; Iran

**Corresponding Author:** Darioush Shirvanizade, student of Shahid Sadoughi Univ Med Sci, Fac Dent, Yazd; Iran

**Type of Publication:** Original Research Article

**Conflicts of Interest:** Nil

### Abstract

**Introduction:** Increased concentration in the classroom is one of the causes of academic success, therefore, the present study was accomplished to evaluate Factors Affecting Student Concentration in Classroom in Dental student of Shahid Sadoughi university of Medical Science in 2015.

**Materials and Methods:** In this cross-sectional study, 292 students of Faculty of Dentistry, selected by Census report and were studied. Data collected by a Valid and reliable questionnaire. Data were analyzed by SPSS.17, t-test, ANOVA and Mann Whitney statistical tests.

**Results:** In this study, 292 people with an average age of  $22.81 \pm 0.11$  years, including 103 (35.3%) were male and 189 (64.7%) were female. Among the teacher-related factors teacher skills in applied demonstration of learning material ( $4.40 \pm 0.86$ ), the student-related factors, fatigue and sleepiness in class ( $4.37 \pm 0.76$ ) and environmental factors, noises in class ( $4.05 \pm 0.78$ ) were the most significant factors. There was no statistically significant difference between three factors and age, gender, Married state, and habits and semester ( $P$ -value  $> 0.05$ ).

**Conclusion:** The results showed that the concentration of dental students studied in the classroom is affected by multiple factors. It is recommended to change the behavior of students, faculty members and improve

classroom conditions effective steps be taken to strengthen the focus in classrooms.

**Keywords:** Concentration; Dental Student; self-assessment

### Introduction

The classroom is the beginning of the transmission of ideas. It is a place for disseminating and exchanging information. It is where the thoughts on display are analyzed or criticized. Without encountering the ideas that emerge in the classroom, there will be no progress in students (1).

Students who attend the classroom share their information with other students by listening, studying, asking questions, and making suggestions (2). Increasing the level of concentration of students in the classroom is necessary for such activities (3). Most people think that it is impossible to focus on something inherent and change it, while focusing on something is acquired and must be nurtured and directed every day, and anyone can achieve it with their normal intelligence (4, 5). ).

Increasing the concentration of the senses in the classroom is one of the reasons for academic success, as the results of several studies have shown that unsuccessful students have less accuracy and concentration than successful students in the classroom (6-8).

Concentrating depends on reducing distractions. This means that the more distracting and distracting the factors,

the less the ability to maintain concentration and vice versa. Various factors may disrupt concentration and distract the student. Drowsiness in classrooms, nutritional status, intellectual conflicts, having enough knowledge and information of professors, mastering the subject matter of professors, teaching methods in all classes of professors, use of teaching aids and light status and classroom ventilation are among these cases. Are considered (7-17).

Awareness of the acquisition of concentration can be achieved by changing some behavioral patterns of students in order to increase concentration. Having a daily schedule during the day to solve the problem of insomnia, strategies to increase interest in academic topics and reduce students' intellectual conflicts, are all items that pay more attention to students' psychological affairs and benefit from the presence of experienced counselors and Awareness in academic environments is emphasized (3). Therefore, the present study has been designed with the aim of identifying the factors affecting concentration in the class from the point of view of students of Shahid Sadoughi University of Medical Sciences, Yazd School of Dentistry, in order to identify the components affecting concentration in students' view.

### **Methods and Materials**

This study is a descriptive-cross-sectional study that was conducted in the academic year 2016-2017 on 292 students of general dentistry (national and international) of Shahid Sadoughi University of Medical Sciences in Yazd. Data collection tools were two-part questionnaires, the first part of which included demographic information (age, gender, marriage and residence) and academic specifications (academic semester, total grade point average) and the second part included a valid and reliable classroom questionnaire in Mehralizade study. Et al. (19) were used and its validity was investigated by prominent

professors of Semnan University and its reliability was confirmed with a correlation coefficient of 0.77 rs. This questionnaire contains concentration questions from the students' point of view in three sections: factors related to the professor, (11 questions), factors related to the student (11 questions) and environmental factors (3 questions). Questionnaire scores were scored on a Likert scale with scores of 1 to 5, respectively, for ineffective, very low, low, high, and very high responses. The maximum total score and the score of each field is 5.

During the distribution of the questionnaire, the necessary explanations about the study and its objectives were given to the students by the researcher. The collected data were analyzed using SPSS software version 17 and statistical tests of T.test, ANOVA and Mann Whitney at a significance level of 0.05. It should be noted that this study was reviewed and approved by the "Ethics Committee in Research of Shahid Sadoughi University of Medical Sciences, Yazd (Iran) with the ID IR.SSU.REC.1395.138."

### **Results**

In the present study, out of 320 distributed questionnaires, 292 questionnaires were returned, of which 103 (35.3%) were male and 189 (64.7%) were female. Until he was 32 years old. The most relevant factors in the factors related to the professor, the master's skill in creating motivation  $(4/40 \pm 0/86)$ , the large volume of teaching materials in one session  $(4/30 \pm 0/80)$ , the teacher's sufficient knowledge and information about the discussion  $(4/30 \pm 0/77)$  It was. (Table 1).

Table 1: Average and standard deviation of the score of the factors related to the teacher with a focus on the classroom from the students' point of view

Items	standard deviation	Average
Professor's skill in motivating (practical application)	076	440
Proper time management of professors in providing content	086	404
Use PowerPoint	099	373
Excessive teaching content in one session	080	430
Students' positive mental history of the professor	092	406
Appropriate speed of teaching	076	407
The sound of the master is uniform	096	4
Professor's polite treatment of students	075	429
The ability of the teacher to accompany the students	078	429
Adequate knowledge of the professor about the discussion	077	430
The different gender of the professor with the student	113	236

Student-related factors, most associated with drowsiness in the classroom ( $4/37 \pm 0/76$ ), having individual mental conflict ( $4/36 \pm 0/75$ ), interest in the subject ( $4/27 \pm 0/74$ ) The most relevant factor in environmental factors was the presence of noise pollution in the classroom ( $4/05 \pm 0/78$ ). The results of the T-test statistical test did not show a statistically significant relationship between the mean score of concentration in the classroom in three areas according to age ( $P < 0.05$ ).

Table 2: shows the relationship between average grade point average and age T-test

Environmental factors Standard deviation±Mean	Student-related factors Standard deviation±Mean	Factors related to the professor Standard deviation±Mean	age
0.83±0.17	3.12±0.04	3.28±0.06	25>
0.79±0.23	3.48±0.31	3.30±0.23	25≤
0.116	0.312	0.935	P-value

Also, the results of T-test statistical test did not show a statistically significant relationship between the mean score of concentration in the classroom in three areas in terms of gender ( $P$ -value  $< 0.05$ ).

Table 3: The relationship between the mean score of concentration in the classroom and gender T-test

Environmental factors Standard deviation±Mean	Student-related factors Standard deviation±Mean	Factors related to the professor Standard deviation±Mean	gender
0.81±0.02	3.09 ±0.07	3.20±0.09	Man
0.84±0.01	3.21±0.06	3.40±0.08	Woman
0.307	0.257	0.129	P-value

The results of ANOVA statistical test did not show a significant statistical relationship between the mean score of concentration in the classroom in two areas of factors related to the teacher, related to the student in terms of academic semester ( $P$ -value  $< 0.05$ ). However, a statistically significant relationship was observed between the mean concentration score in the classroom and environmental factors ( $P$ -value = 0.018).

Table 4: The relationship between the mean score of concentration in the classroom and the Academic semester One way ANOVA

Environmental factors Standard deviation ± Mean	Student-related factors Standard deviation ± Mean	Factors related to the professor Standard deviation±Mean	Areas Academic semester
0.78±0.04	3.13±0.16	3.70±0.13	4
0.82±0.03	3.06±0.10	2.90±0.20	5
0.78±0.02	3.02±0.11	3.16±0.14	6
0.90±0.02	3.06±0.18	3.38±0.29	7
0.79±0.03	2.90±0.15	3.26±0.14	8
0.85±0.03	3.24±0.17	3.45±0.22	9
0.82±0.02	3.20±0	3.47±0.08	10
0.78±0.03	3.61±0.26	3.38±0.12	11
0.92±0.02	3.44±0.12	3.57±0.12	12
0.018	0.074	0.073	P-value

More than half of the students (56.5%) believed that the concentration in the upper classroom is from 7:30 to 8:30 in the morning.

### Discussion

The results of the present study showed that the most relevant factor related to the professor is the skill of the professor in motivating students. In the study of Mehr Alizadeh et al. (18) as well as Fyrozania et al. (15), the importance of the professor's skill in creating motivation has been mentioned as one of the important factors in increasing the concentration in the classroom from the students' point of view.

Asadi and colleagues point out in their study that not only can learning not be stopped because of lack of motivation in learners, but it can also be motivated during teaching and learning (16). . The result is that the teacher can improve the learner's concentration during teaching and during the study by motivating the learner (19).

In the present study, the results showed that from the students' point of view, drowsiness in the classroom is the most important factor influencing concentration in the classroom; This result has been reported in several studies (13, 14, 18).

The results of Shaygan's study (20) showed that 8.27% of students are largely drowsy in the classroom. The results of a study by Massoudzadeh et al. (21) showed that 47% of medical students were sleep deprived and 31% of the students they studied reported snoozing while sitting and studying. The results of a study by Rodrigues et al. (22) showed that 39.5% of medical students at the beginning of the academic semester suffer from excessive daily drowsiness and 22% of students at the end of the academic semester suffer from severe drowsiness. They are not as successful in the end-of-term exams as their other classmates. Research has shown that sleep deprivation (4 hours or less at night) increases fatigue, reduces mobility between medical students and residents (23). According to Green, sleep deprivation is associated with anxiety, hypersensitivity, confusion, fatigue, irritability, disproportionate mood, memory impairment, and difficulty concentrating in medical students. Studies have shown that good sleep status improves the quality of education (24).

According to Howell et al., Teaching will work best when students are physically, mentally alert, comfortable, and refreshed (25). In the present study, the most important factor related to environmental factors is the presence of noise pollution in the classroom. The results of a study by

Aliabadi et al. In Hamedan (Iran) showed that the classrooms of medical students are not in good acoustic conditions. The background sound level inside the classrooms is also mainly influenced by the extracurricular sound (26). The importance of comfort in the classroom should be borne in mind because the clarity of sound perception by students and the teacher can affect the quality of educational activities (27).

As can be seen in this study, distraction factors are minimal in front of the class and maximum at the end of the class. This is due to the students' relationship with the professor, which increases concentration and is easily done in the front rows of the classroom between the professor and the student. Also, the cheerfulness and freshness of students in the morning classes in standard conditions is a definite matter, and as can be seen in this study, students have pointed to their higher concentration during these hours (28). However, there was no statistically significant difference between the mean scores of girls and boys in terms of factors affecting concentration. But girls scored higher on all three factors than boys. It can be inferred that, on average, distractions in the classroom affect girls more than boys. A study of statistical data showed that girls were more likely than boys to associate attention with teacher and student factors. The reason for this could be that girls are more sensitive to interpersonal relationships than boys. It is clear that due to the different psychological characteristics of girls and boys, girls are more affected by their environment.

### **Conclusion and Recommendations**

The results of the present study showed that too many factors in the classroom cause students to be inattentive or distracted, which ultimately leads to incomplete learning by the individual, given that concentration is by no means inherent. To develop this skill, it is recommended that

teachers and students be taught techniques to create mindfulness in the classroom to improve learning. Undoubtedly, by changing some conditions such as changing teaching methods, motivating students, inventing new teaching methods and strengthening the scientific and practical ability of professors and correcting students' behavioral patterns such as planning during the day to achieve adequate and appropriate sleep. , Taking care of the nutrition of students and strengthening the effective and active presence in the classroom can be taken to improve the level of concentration and then improve the quality of education.

### References

1. Damari B. A study of identifying the most important factors affecting the attendance medical students of Tehran University of Medical Sciences in the basic sciences courses in the regular faculty classes. *Teb va Tazkieh*2001; 41 (36): 40 ..
2. Sleight MJ, Ritzer DR. Encouraging student attendance. *APS Observer* 2001; 14 (9): 19-20.
3. Pourazizi M, Shahinfar H, Nikkhah R, Zolfaghari Sh, Mehralizadeh S, Ghorbani R. How can students increase their focus in class? Twelfth National Congress on Medical Education, Mashhad University of Medical Sciences.2012.
4. Mangal SK. *Advanced Educational Psychology*.2nd ed. New Delhi: Prentice-Hall of India Pvt. Limited; 2004.
5. Coffey CE, McAllister TW, Silver JM. *Guide to neuropsychiatric therapeutics*. hiladelphia: Lippincott Williams & Wilkins, 2007.p. 449
6. Changyzi Ashtyani S, Shamsi M, Mohamadbeygi A, Frequency of educational decline and some effective factors of student's opinion in Arak University of Medical Sciences, 2009. *Arak Medical University Journal*, 2010, 12 (4 suppl 1): 24-33.
7. Delaram M, Aein F, Fourouzandeh N, The effective factors on dropout in students of Shahrekord University of Medical Sciences. *Journal of Hormozgan University of Medical Sciences* 2012; 16 (2): 163-172.
8. Rahimi Sajjad, Heshmati Hashem, Moghaddam Zahra. Excessive study and effective factors in the academic failure of students living in dormitories of the faculties of paramedical and health sciences of Golestan University of Medical Sciences in the academic year 2011-2011. *Quarterly Journal of Torbat Heydariyeh University of Medical Sciences*. 1393; 2 (1): 16-28.
9. Landrigan CP, Rothschild JM, Cronin JW, Kaushal R, Burdick E, Katz JT, et al. Effect of reducing interns' working hours on serious medical errors in intensive care units. *N Engl J Med*. 2004; 351 (18): 1838- 48.
10. Ohayon MM, Lemoine P, Arnaud-Briant V, Dreyfus M. Prevalence and consequences of sleep disorders in a shift worker population. *J Psychosom Res* 2002; 53 (1): 577-83.
11. Nobuaki T. Does the degree of concentration in lecture and / or of the will to learn affect student examination result of Health Science ?. *Memoirs on Liberal Arts and Sciences*. Kanazawa Medical University. 2001; 29: 15-8. [citd 2013 Sep 7]. Available from:<http://sciencelinks.jp/jeast/article/200205/000020020502A0191916.php>16. Stuart J, Rutherford RJ. Medical student concentration during lectures. *Lancet*. 1978; 2 (8088): 514-6.
12. Ozturk C, Muslu GK, Dicle A. A comparison of problem-based and traditional education on nursing students' critical thinking dispositions. *Nurse Educ Today*. 2008; 28 (5): 627-32.

13. Nojomi M, Ghalhe Bandi MF, Kaffashi S. Sleep pattern in medical students and residents. *Arch Iran Med.* 2009; 12 (6): 542-9.
  14. Araste M. Evaluation of Insomnia in Medical Students of Kurdistan University. *Scientific Journal of Kurdistan University of Medical Sciences.* 2007; 12 (3): 58-63.
  15. Firouznia S, Yousefi A, Ghassemi G. The relationship between academic motivation and academic achievement in medical students of Isfahan University of Medical Sciences. *Iranian Journal of Medical Education.* 2009; 9 (1): 79-84. .
  16. Asadi Noghabi AA. Learning process and principles of patient education. Tehran: Bashari .p.2004.
  17. Ghorbani Raheb, Haji Aghajani Saeed, Heydarifar Masoumeh, Andadeh Fatemeh, Shams Abadi Marzieh. Investigating the views of the students of the Faculty of Nursing and Pediatrics of Semnan University of Medical Sciences regarding the characteristics of a good university professor. *Komesh:* 1387; 10 (2): 84-77
  18. Mehr Alizadeh Samira, Ghorbani Ghorb, Zolfaghari Sheida, Shahinfar Hamid, Nikkhah Ronaz, Pour-Azizi Mohsen. Factors affecting class focus from the perspective of students of Semnan University of Medical Sciences. *Iranian Journal of Medical Education Education* 2013; 13 (8): 71-663.
  19. Anari Nejad, Abbas; Razieh Akrami and Zahra Jokar, 2015, The study of factors affecting class focus from the perspective of Farhangian University students, the first scientific-research conference on psychology, educational sciences and pathology of society, electronically, Green Gold Company, Payesh Association, [http:// www. civilica.com/Paper-ASIBCONF01-ASIBCONF01\\_227.html](http://www.civilica.com/Paper-ASIBCONF01-ASIBCONF01_227.html).
  20. Shaygan Ishaq. The effect of teachers 'teaching methods and appearance on students' drowsiness. 6, No. 3, Spring 2012; 6 (3): 177-255.
  21. Masoodzade A, Zangane A, Shahbaznezhad L. Daytime sleepiness in medical students at Mazandaran university of medical sciences, 2003. *J Mazandaran Univ Med Sci.* 2006; 16 (52): 75-80.
  22. Rodrigues RND, Viegas CAA, Abreuesilva A, Tavares P, Daytime sleepiness and academic performance in medical students, *Arq Neuropsiquiatr;* sao Paulo, Mar 2002, 60.
  23. Browne BJ, Van Susteren T, Onsager DR, Simpson D, Salaymeh B, Condon RE, Influence of sleep deprivation on learning among surgical house staff and medical students. *Surgery* 1994; 115 (5): 604-10.
  24. Green MJ, What (if anything) is wrong with residency overwork? *Ann Int Med* 1995; 123 (7): 512-17
  25. Howell AJ, Jahrig JC, Powell RA, Sleep quality sleep propensity and academic performance, *Percept Mot Skill,* 2004; 99 (2): 525-35.
  26. Aliabadi M, Mahdavi N, Farhadian M, Shafie Motlagh M. Evaluation of noise pollution and acoustic comfort in the classrooms of Hamadan University of Medical Sciences in 2012. *Journal of Ergonomics.* 2013; 1 (2): 19-27.
  27. Dockrell J, Shield B. Children's perceptions of their acoustic environment at school and at home. *J Acoust Soc Am.* 2004; 115: 2964-73.
  28. Anderson LW. Classroom Environment. *International Encyclopedia of Teaching and Teacher Education.* 2nd Ed. New York: Elsevier Science Inc, 1995.p. 88-101.
- 

**How to citation this article:** Dr Hadi salami, Darioush Shirvanizade, "Evaluation of factors Affecting Student Concentration in Classroom in Dental student of Shahid Sadoughi university of Medical Science in 2015",

IJMACR- May- June - 2020, Vol – 3, Issue -3, P. No. 25-31.

**Copyright:** © 2020, Darioush Shirvanizade, et al. This is an open access journal and article distributed under the terms of the creative commons attribution noncommercial License 4.0. Which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

---