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# The Relationship between Reading Habits and Academic Achievement Motivation in Qazvin Dental Students in 2022-2023

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**ABSTRACT**

**Introduction:** Improvement of students' academic performance is the main goal of educational centers, because the academic performance of individuals is the basis of their success at every juncture. This study aimed to investigate the relationship between study habits and academic achievement motivation in Qazvin dental students in 2022-2023.

**Materials and Methods:** This study was a descriptive-analytical study that was performed on all dental students of Qazvin University of Medical Sciences. Data collection tool was three questionnaires, the first part contained demographic and background information including age, sex, marital status, semester and second part contained the PSSHI study habits questionnaire which was developed by Palesani and Sharma and included 45 questions. The third part contains Hermens questionnaire to measure the motivation of academic achievement. The validity of the questionnaires was obtained using experts' opinions and its reliability was obtained using Cronbach's alpha test. The collected data were entered into SPSS software version 26, then using descriptive statistics (mean, standard deviation, etc.) and statistical analysis including independent t-test and ANOVA were analyzed.

**Results:** The results of this study showed that the educational motivation of most students of Qazvin dental school was high which had no significant relationship with sex, age, marital status and term ($p>0.05$). There was a significant relationship between academic motivation and study habits of students ($p<0.05$).

**Conclusion:** The results of this study showed that the study habits of Qazvin dental students are moderately desirable, so it seems that students are not familiar enough with learning facilities and study skills. Therefore to enhance the study skills of students, teaching Workshops will be included in the curriculum.

**Keywords:** Study; Habits; Academic; Motivation; Dentistry.

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## Introduction

Improvement of students' academic performance is the main goal of educational centers because academic performance of individuals is the basis of their success at every juncture. Students' academic performance is affected by various factors, one of which is the study habits of individuals [1]. Study habits are skills and habits that increase the motivation of studying and learning in students and turn the study into an effective study with high efficiency [2]. Students' study habits can be studied in areas such as time segmentation, physical status, reading ability, taking notes, learning motivation, memory, taking exams and health [3].

Many studies have considered the effectiveness of the study method as an integral component of academic achievement. In one systematic review, there is a very strong correlation between study habits and students' academic performance [4]. Some evidences has considered studying skills as the most effective factor in students' academic status [5]. In the field of education, motivation is a multidimensional phenomenon that encompasses one's beliefs about the ability to perform the desired activity, the reasons or goals of the person to perform that activity, and the emotional response associated with the activity [6]. Motivation is a psychological force that motivates a person's behavior toward the desired goal. This is a psychological process that affects both the well-being and the students' academic achievements [7]. Motivation is the most important factor affecting the individual's academic success or failure in the learning process. It is also a major predictor of academic achievement [8].

With this motivation, people pursue the necessary mobility to successfully complete a task, achieve a goal, or achieve a certain degree of competence in their work, in order to finally achieve the necessary success in learning and academic achievement. Due to the effect of academic achievement motivation on students' success in recent decades, psychologists and researchers have sought to investigate and identify factors affecting academic achievement motivation. The findings of their research showed that personality, familial, academic, far-reaching and social variables are related to this construct [9]. Many students have the talent and ability to succeed, but because they lack the skills to study, their success is less than expected [10]. Motivation, commitment, social skills, study skills, and the use of study methods and techniques affect academic ability and achievement. Half of the students enter the university without the necessary preparations such as reading skills, and they do not achieve academic success [11]. Therefore, this study aimed to determine the relationship between study habits and academic achievement motivation in Qazvin dental students, so that examining the study skills and identifying the factors affecting it, can be a step towards advancing educational goals of universities and educational centers. Knowledge of study habits and skills is a key step for appropriate educational interventions. It promotes students' success by determining the strengths and weaknesses of the study and providing appropriate interventions.

## Materials and Methods

In this cross-sectional study, 245 Qazvin dental students entered the study after signing informed consent letter. The participants' personal information remained strictly confidential. The study protocol was approved by the ethics committee of Qazvin University of Medical Sciences under number IR. QUMS. REC.1401.216. After entering the study, questionnaires were provided to them, they were given the necessary explanations, and they were asked to answer the questionnaires completely and honestly. The first part contained demographic and background information of participants including age, sex, marital status, and academic semester. The second part contains the Palsana & Sharma Study Habit Inventory (PSSHI) questionnaire and consists of 45 questions. The study habits questionnaire measured a total of 8 areas of the study habits: time segmentation, physical status, ability to read, take notes, factors influencing learning motivation, memory, exams, and well-being, which means healthy habits of eating, sleeping and exercise. A person's overall score can range from 0 to 90, and the higher the score, the better the reading habits. If the score is less than 30, the study habits are undesirable and if it is between 31 and 60, the study habits are relatively desirable. If the score is 61 or higher, the study habits are considered desirable. The validity and reliability of the questionnaire have been confirmed in several studies. Based on this, the repeatability reliability was 0.88, internal consistency was 0.65 by splitting method and content validity was 0.74. The third part contains Hermans questionnaire to measure academic achievement motivation. The questions of this questionnaire are in the form of 29 unfinished sentences and after each sentence, four options are given. These options are scored according to whether the intensity of the motivation for progress is from high to low or low to high. The questionnaire scoring was done according to the nine characteristics on which the questions were set. Some questions are

answered positively, others negative. The range varies from 29 to 116. If the total score is obtained from the total questions, if it is higher than the average, it indicates high achievement motivation and scores below average indicates low achievement motivation in the individual [12]. In a study in Iran, the reliability coefficient of this questionnaire was estimated by Cronbach's alpha method 0.79 [10]. Data were analyzed using SPSS version 26. The descriptive results were calculated by frequency, mean and standard deviation based on the type of variable and were analyzed by statistical tests containing independent t-test, Pearson correlation and analysis of variance or their nonparametric equivalents at a significance level of less than 0.05.

## Results

149 dental students completed 45-item study habits questionnaires and 29 questions of academic motivation, 76 (51%) were female and 73 (49%) were men. 113 (75.8%) were single, 26 (17.4%) were married, and 10 (6.7%) had left their marital status unanswered. The students were studying in semesters 2 to 12. The most participants were sixth-semester students (22.1%) and the least frequency (10.7%) was related to the second-semester students. The mean age of the subjects was 23±31 years. The students were aged between 19 and 36 years. The mean of grade point average (GPA) was 15.96±1.23 based on self-statement. The minimum score was 12 and the maximum was 19. The results of this study showed that the mean scores of the study habits were 46.89±6.86, the lowest score was 22 and the highest score was 64.

Time segmentation had the highest mean (1.18) and take note had the lowest mean (0.95) among different components of study habits. Only two students (1.3%) had undesirable study habits, 136 students (91.3%) had relatively desirable study habits and 11 students (7.4%) had desirable study habits. The mean score for academic motivation was 79.4±8.38. The minimum and maximum scores were 36 and 98. 116 subjects (77.9%) had high academic motivation and 33 (22.1%) had low academic motivation. Pearson correlation test was used to investigate the relationship between academic motivation and study habits and its components. The results showed that there was a positive and significant relationship between academic motivation and study habits and the time segmentation, physical status, reading ability, taking notes, and effective factors in learning motivation but there was no relationship with memory, health and taking exams. Pearson correlation test was used to examine the relationship between age and academic achievement with academic motivation and study habits. The results showed no significant relationship between age and study habits and academic motivation. However, the relationship between GPA and study habits and academic motivation was positive and significant. There was also a negative and significant relationship between age and GPA. Analysis of variance test was used to investigate the relationship between academic motivation and academic semester. There was no significant relationship between academic semesters and academic motivation. The mean scores of second-semester students' academic motivation were the highest and sixth-semester students were the lowest.

Analysis of variance test was used to examine the relationship between study habits and academic semester. The mean scores of habits showed that there was no significant relationship between academic semesters and study habits. The mean scores of study habits of the second-semester students were the highest and the eighth-semester students had the lowest average. Independent t-test was used to investigate the relationship between academic motivation and study habits in terms of gender, as the results showed no significant difference between gender and academic motivation and study habits. Independent t-test was used to investigate the relationship between academic motivation and study habits based on students' marital status, as the results showed no significant difference between the marital status of students with academic motivation and study habits.

## Discussion

The present study data showed that the study habits of Qazvin dental students were moderate (relatively desirable). The highest mean in the components of study habits was related to time segmentation and the lowest mean was related to the component of taking note. In FereidouniMoghadam et al, most of the students had moderate (relatively desirable) study habits, i.e., their scores were between 31 and 60. Taking notes had the lowest mean and taking exams had the highest mean in the components of study habits [13]. The results of Heidarzadeh et al showed that the average score of study habits in normal and talented students was moderate and there was no significant difference between them. The lowest mean score in normal students was taking notes and in the talented students was well-being. The highest mean in normal students was taking exams and in the talented students was reading ability [14]. The results of these two studies are con-

sistent with the present study and the average scores of study habits are at a moderate level. In the present study, the lowest mean was related to taking notes, but in this study, the highest mean was related to time segmentation. One study showed that the study habits of students were relatively desirable. The main problems of students in the present study in different areas of study habits and skills were in the fields of taking notes, health, memory, time segmentation, physical status, learning motivation, reading ability and taking exams, respectively [15]. In another study conducted by Torshizi et al [16], the most problems of students were reported in the field of taking notes, which is consistent with the results of this study.

In Hashemian et al study [3], the lowest scores of students were in the field of health which is inconsistent with the current study. This inconsistency can be explained by differences in academic field and degree and data collection tools. The study of Fereydouni Moghaddam et al [13] was conducted on medical students similar to the present study, while Hashemian et al study [3] was done on students of Isfahan University. Study skills in different fields of study habits are in almost the same range (moderate or relatively desirable). Study habits are formed in people from childhood and these habits continue until adulthood. Abazari and Rigi report that study habits similar to many other habits, are formed in childhood and are an acquired habit [17]. The study habits are the tendency of a student to a learning style that one can learn well [18]. Study habits are the tendency of the student to learn by an effective and appropriate method that expresses the ability to organize and plan for their learning [19]. Learning habits in adulthood are modifiable and with a little effort, tolerance and recognition of better study habits, can avoid bad study habits [17]. Therefore, considering that students' study habits are far from the desired conditions, it is suggested that by holding workshops with the focus studying and teaching students' study habits, their problems and shortcomings in this regard be identified and in order to eliminate these deficiencies. Extensive efforts should be made by the universities and relevant authorities for example teaching time segmentation or provideing appropriate physical conditions for study. The academic motivation of about 80% of Qazvin dental students was high and 20% of them had low academic motivation which was not significantly related to gender, age, marital status and semester. There was a significant relationship between academic motivation and study habits. Ramezani et al [20] showed that 62% of medical students had moderate motivation and about 14% had good motivation. So, unlike our study, the majority of people in this study were moderately motivated. This study was conducted on all medical students so that paramedical students had more academic motivation. 53% of students in Golestan University of Medical Sciences had high motivation and 46% had moderate motivation. With increasing students' satisfaction with education, their educational motivation increased [21]. Perhaps the reason for this higher motivation of dental students is due to better job and economic status in this field, which is one of the external factors of motivation. In dentistry where correct, in time and out of personal interest decisions in diagnosis and treatment of patients are necessary to improve the level of health of the community, therefore, motivation and especially internal motivation can be very effective.

There was no significant difference between variables such as age, sex, marital status, place of residence and semester in Ramezani et al [20]. In the Roohi et al study [21], female students had a higher motivation, which was not in line with the present study. The results of the present study showed no significant relationship between age and academic motivation. Roohi et al [21] indicated that there was a significant inverse relationship between age and academic motivation. In Sawair study [22], female students performed better in theoretical subjects, pediatric dentistry clinics and prosthetics than boys. The results of these two studies were not consistent with the present study, which could be due to differences in the studied samples.

The results of Sohrabi et al [23] showed that there was a direct and significant relationship between academic motivation and GPA. The academic achievement of students is dependent on their motivation. This result is in line with the present study which shows that academic motivation affects students' academic achievement. In Yaminfirooz et al study [24], there was no significant difference between male and female students. In the research of Hosseini et al [12], Torshizi et al [16], Hashemian et al [6] and Alamdar et al [25] did not find a significant relationship between gender and study habits, which is consistent with the present study. This factor indicates the educational policy of the universities of the country regarding the gender of male and female students. In study of Yaminfirooz et al [24] and Fereidouni Moghaddam [13] in line with the results of this study, there was no significant difference between age and students' study habits. An interesting finding in this study was a significant relationship between GPA and the total scores of study habits. But

Madmoli et al [15], Hashemian et al [3]and Zarezadeh et al [26] did not find a relationship between study habits and GPA. The study of Fereydouni Moghadam [13] and Torshizi et al [16] reported a positive and significant relationship between the score of study habits and academic performance, which was in line with the present study. The reasons for the differences in the results can be related to the differences in the research population, their field of study and their degree level. The Madmoli et al study [15] was conducted on undergraduate students of emergency medicine and operating room and nursing students. While Ferdouni Moghaddam's research [13] has only been done on nursing students and Torshizi's article [16] has been done on all medical students.

The present study was conducted on dental students. One of the other results obtained from the Madmoli et al study [15] was the lack of a significant relationship between gender, marital status and total score of study habits. In our study, there was no relationship between gender and marital status with the total score of study habits, which could be due to the very low number of married students in the study. Results from this point of view are consistent with the findings of the Torshizi et al [16]. Shavana et al [27] found a positive and significant relationship between study habits and taking notes and academic achievement. The results of these studies are in line with the present study which shows a positive relationship between academic motivation and study habits. Considering the importance of study habits in students' academic performance, academic achievement and their future academic and career, planning is necessary to improve students' study habits. Consequently, it is suggested that by holding educational courses, they are trained to correct study habits. However, due to the expansion of social networks and changes that have occurred in study habits, the role of these emerging technologies should not be ignored because providing educational materials with new tools and moving to electronic and virtual education could cover the process of forming new study habits.

## Conclusion

The results showed that the academic motivation of most students of Qazvin Dental School was high which had no significant relationship with gender, age, marital status and semester. There was a significant relationship between academic motivation and study habits. The results of this study showed that the study habits of Qazvin dental students are moderately (relatively) desirable, so it seems that students are not sufficiently familiar with learning facilities and study skills. Study habits can be taught and learned, so it is recommended to include educational workshops in their curriculum to enhance their study habits which can be effective in their academic achievement and academic motivation. It is suggested that future studies on interventions to improve students' study habits should be conducted. Due to selecting a sample group only from dental students, in generalizing the results to other students, caution should be taken.

## Conflict of Interest

There is no conflict of interest to declare.

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