

# Motivation and attitudes of Tunisian students for choosing the dental profession

## Facteurs influençant le choix de la médecine dentaire en Tunisie

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### RÉSUMÉ

**Introduction :** Comprendre les raisons qui motivent les bacheliers à choisir de devenir dentistes est très important.

**Objectif :** Etudier les facteurs influençant le choix de la médecine dentaire chez les étudiants tunisiens.

**Méthodes :** Il s'agit d'une étude transversale et descriptive menée auprès des étudiants inscrits en première année à la faculté de médecine dentaire de Monastir durant l'année universitaire 2016/2017. Les étudiants étrangers ainsi que les redoublants n'ont pas été inclus. Un auto-questionnaire a permis de collecter les informations générales et les facteurs influençant le choix de la médecine dentaire.

**Résultats :** Cent soixante-neuf étudiants ont répondu au questionnaire avec un taux de réponse de 77,9%. Un questionnaire a été exclu pour réponses incomplètes. Pour 69,6% des étudiants, ce choix était personnel avec une différence statistiquement significative selon le genre (54,8% et 73% respectivement chez les hommes et les femmes,  $p=0.04$ ). La moitié des étudiants avaient un membre proche de leur famille parmi le personnel médical et 64,9% ont déclaré que la médecine générale était leur premier choix. Les deux facteurs les plus importants influençant le choix des étudiants étaient le facteur financier (69,6%) puis le prestige de la profession (61,3%). En effet, 63,1% des répondants ont estimé que le métier de médecin dentiste est lucratif et 57,7% prestigieux.

**Conclusion :** Les facteurs influençant le choix des études odontologiques peuvent mener certains futurs praticiens à des désillusions. D'où l'utilité d'organiser des journées portes ouvertes à la faculté de médecine dentaire de Monastir pour aider les bacheliers à affiner leur choix.

### Mots-clés

Motivation, Étudiant, Choix de carrière, Tunisie, Médecine dentaire

### SUMMARY

**Background:** The right motivation for choosing the future profession is crucial. Focusing on students' motivation for choosing dentistry as a career is very important in order to understand the reasons behind this decision.

**Aim:** To determine the current motivations of first year dental students and the reasons for choosing dental medicine at the university of Monastir.

**Methods:** This was a cross-sectional and descriptive study led among the students registered at the faculty of dental medicine during the academic year 2016/2017. Foreign students as well as those repeating the year were not included in the present study. Information on the socio-demographic profile and motivation for choosing dentistry was collected using a self-administered questionnaire written in English.

**Results:** One hundred and sixty-nine students participated in the survey, representing a 77.9% response rate. One questionnaire was excluded because of incomplete answers. The majority of the students (69.6%) were self-motivated to study dentistry. A difference according to gender (54.8% and 73% respectively among males and females,  $p=0.04$ ) was noted. Over half of them (53.6%) had relatives in the medical profession. The majority of dental students (64.9%) would have preferred to study medicine. The financial motive was the first (69.6%) for choosing dentistry and the profession's prestige was the second (61.3%). The majority of the respondents indicated that the chosen profession is prestigious (57.7%) and provides good income (63.1%).

**Conclusions:** The right motivation for choosing the future profession is very important. The focusing on students' motivation for choosing dentistry as a career is very important in order to understand the reasons behind this decision.

### Key-words

Motivation, Students, Career Choice, Tunisia, Dentistry.

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## INTRODUCTION

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The decision to apply for a university is one of the most important life choices that a person ever makes (1). This is true especially for dental medicine because it has been considered to be complex and time consuming (2). Motivation is defined "as an intrinsic motive which triggers behaviors of the individual, influences and maintains the continuity of these behaviors, reflects the sentiments and expectations of the individual" (3). The right motivation for choosing the future profession is of great interest for a successful completion of study (2). Focusing on students' motivation for choosing dentistry as a career is very important in order to understand the reasons behind this decision (2). Therefore, teachers, administrators and politicians can adapt appropriate strategies and right policies.

Several studies (4-6) have been conducted worldwide to determine the motivational factors influencing students to apply for dental medicine. However, to the best of the author's knowledge, no one has been performed in Tunisia. Tunisia counts about 11 million inhabitants (7) and about 4000 doctors of dental medicine (unpublished data, dental council of Tunisia). There is only one public faculty of dental medicine located in Monastir (160 km away from Tunis). Until so far, there is no private faculty. The studies last six years. Dental students take essentially basic science courses during the first three years. Then, they continue with dental courses and training for the remaining two years. Upon successful completion of studies, students have to fulfill a one-year internal training. Finally, they must defend their dissertations in order to obtain the doctor of dental medicine degree.

The motivational factors are very complex (8). In fact, each person may have his own reasons for choosing the dental profession. According to Scarbecz and Ross (8), these factors can be divided into four main groups: a financial motive including the financial and professional stability; a motive related to caring for people and the ability to take care of and help others; a motive with regard to flexibility defined as the freedom and flexibility in planning work; and a business-oriented motive focusing on the extent to which students believe in independence and self-management of their future activities.

Since student's motives for selecting the dental profession vary between countries (9), it is interesting to understand the motivating factors underpinning this decision in the Tunisian context. The aim of this study was to determine

the Tunisian first-year dental students' motivation and preliminary attitude for choosing the dental profession.

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## METHODS

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This was a descriptive and cross-sectional study conducted in January 2017 at the faculty of dental medicine, university of Monastir, Tunisia. It was approved by the dean of the faculty. The study population consisted of first-year dental students registered for the academic year 2016/2017. Foreign students as well as those repeating the year were not included in the present study. The number of potential participants after applying the inclusion criteria was 217.

To collect information, a self-questionnaire, written in English, was used (4). The latter consisted of 12 questions which were categorized as follows: general characteristics such as age, gender and previous graduation; items related to the choice of dentistry as a career; factors motivating the choice of the dental profession; perception of dentistry as a profession; and the reasons for abandoning dental medicine or transferring to another university.

Sufficiently clear and detailed information about the purpose of the study was given to the participants orally. Then, questionnaires were distributed at the beginning of a practical work classroom to the first-year dental students who were present to be completed and returned immediately. The participants were enrolled voluntarily in the study without any direct benefits. The completion of the questionnaire by each student was considered as a form of individual consent to participate in the study.

Results were expressed as mean  $\pm$  standard deviation (SD) and relative frequency. The Chi<sup>2</sup> test was used to compare the percentages. All the descriptive statistics were performed using MICROSOFT EXCEL version 2010.

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## RESULTS

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Of the 217 questionnaires distributed to the first-year dental students, 169 were completed and returned, giving an overall response rate of 77.9%. One questionnaire was excluded because of incomplete answers. The final sample consisted of 168 participants. Among them, 137 (81.5%) were females and 31 (18.4%) were males. The age ranged from 18 to 21 years with a mean age  $\pm$  SD= 19.3  $\pm$  0.5 years. The participants were oriented from experimental sciences, mathematics and sport (98 (58.3%), 69 (41.1%) and 1 (0.6%) respectively).

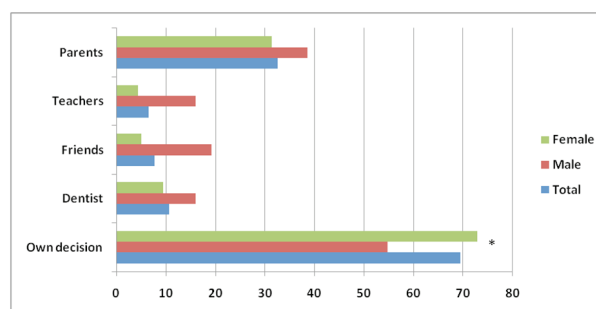
Table 1, figure 1, figure 2, figure 3, and figure 4 show the factors influencing Tunisian students' choice of dentistry.

The main results of the present study were:

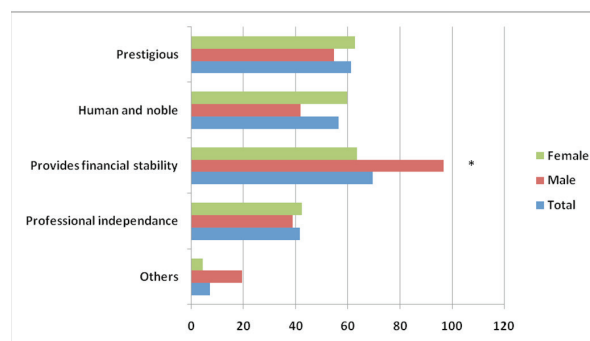
- Students were self-motivated (69.6%) to study dentistry with a difference according to gender (54.8% and 73% respectively among males and females,  $p=0.04$ ). Other people such as dentists, friends, and teachers (10.7%, 7.8%, and 6.5% respectively) did not influence the students' choice (Figure 1);
- Over half of the students (53.6%) had relatives in the medical profession (Table 1);
- The majority of the Tunisian students (64.9%) indicated that dentistry was their second choice and 92.3% were oriented to this specialty the first time they applied for it (Table 1);
- The financial motive was the first (69.6%) for choosing dentistry. It was statistically different according to gender (96.8% and 63.5% respectively among males and females,  $p<0.01$ ). The second and third motives were respectively the prestige of the profession (61.3%) and the opportunity to help others (56.5%) (Figure 2). In addition, 63.1% of the respondents indicated that the chosen profession provides good income (Figure 3).
- Loss of interest in the profession was the first reason (33.3%) given by the students for abandoning studies in dentistry. The difference was statistically different between males and females. The second reason was health problems (31.5%) (Figure 4).

**Table 1: Factors involved in the choice of dentistry.**

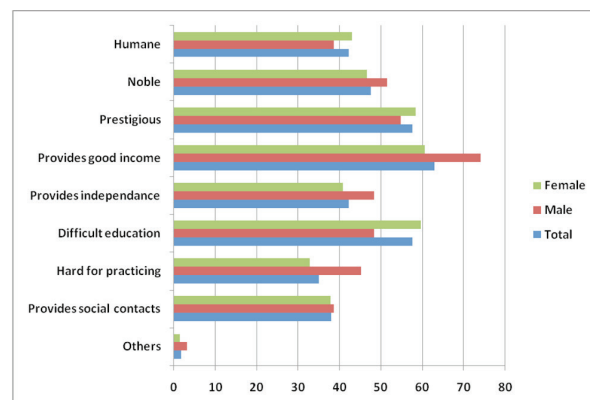
		n	%
How many times did you apply for dentistry?	1	155	92.3
	2	13	7.7
When did you decide to choose dentistry as a profession?	Before the year of the "baccalauréat"	11	6.5
	During the year of the "baccalauréat"	30	17.8
Do you have any close relative in the medical profession?	Yes	78	46.4
	No	90	53.6
What was your first choice?	Medicine	109	64.9
	Dentistry	59	35.1
Will you try to transfer to another university?	Yes	24	14.3
	No	144	85.7



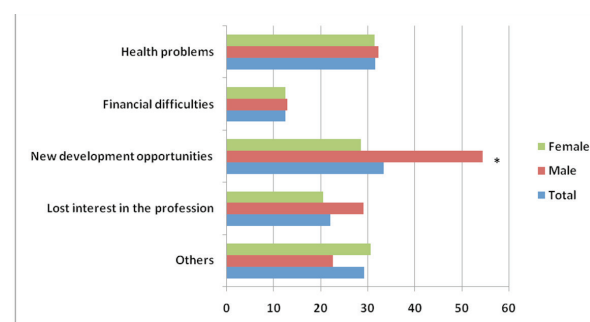
**Figure 1: Distribution (%) of students according to the source of their motivation to study dentistry**



**Figure 2: Distribution (%) of students according to their motives for choosing dentistry**



**Figure 3: Distribution (%) of students according to their attitudes towards the dental profession**



**Figure 4: Distribution (%) of students according to the reasons for terminating their education**

## DISCUSSION

The medical profession is one of the most reputed ones (10). Most publications on the motivation for studying dentistry have been led among dental students in general (11-16). Only very few of them included only first-year students (4,17). Admission to the dental faculty in Tunisia occurs via a national exam known as the "Baccalauréat" taking place at the end of the secondary school. Conducted annually, the "Baccalauréat" determines the faculty or college which the candidate is eligible to apply for. By understanding students' motivation, a right policy may be provided in order to improve the recruitment strategies for the dental faculty (5). To the best of the authors' knowledge, this is the first Tunisian study presenting the reasons for choosing dentistry, as well as their premises regarding the nature of their future profession. The main result was that the top motivational factor for choosing dentistry was the financial status of this profession.

The response rate (77.9%) was lower than in Bulgarian (4) and Iranian (11) studies (99.2% and 97.3% respectively). Yet, it is still reasonably comparable to other similar studies led in Scandinavian countries (15), Malaysia (5), and Croatia (2) (83%, 83%, and 76.3% respectively). The majority of the participants (94.6%) were aged 19 and 20 years. This means that they applied for dentistry immediately after completing their secondary studies. Female students were more represented than male students with a male to female ratio of 1:5. The feminization of dentistry has been noticed in other countries (2,16,18). The decision to be a dentist was largely taken after finishing secondary studies. It was found that 75.7% of the students decided to apply for the dental faculty after getting "the baccalauréat". These findings differ significantly from those in other studies on similar topics (4,12,17). The differences could be related to cultural reasons. Another reason is that motivation and attitudes towards a future profession are constantly adapted to changes in the health policy and the demands of society (19). Furthermore, a large proportion of the respondents (92.3%) applied for dental medicine for the first time. In fact, for decades, the best performing students in Tunisia have always enrolled at the medical faculties including dental medicine. However, "only" 35.1% of them indicated dentistry as their first choice. The others' first choice (64.9%) was medicine. This fact may have significant consequences because these students may have been compelled to pursue a profession that may not fulfill their career expectations (6). Another study found

that medicine was the dental students' first preference (20).

The choice to apply for dentistry was an individual decision (69.6%). These results are similar to those from a previous study (4). Girls were more self-motivated than boys. Other persons such as dentists, friends, and teachers did not influence the students' choice. A study conducted in Sofia, Bulgaria showed the same results (4). However, Hawley et al (17) showed that 52.6% of American first-year students in Nevada indicated their family dentist as the person who had the greatest influence on their choice. The students' parents were also identified as a key factor influencing their choice of dentistry in Tunisia (32.7%). Similar results were observed in Turkey (13), Saudi Arabia (6), and Iran (11). The influence of parents in shaping their children's decision for choosing a career in the health profession is strong in the Arab/Muslim world (6,11,13). Furthermore, 46.4% of the participants in this survey had at least one close relative (mother, father, siblings...) in the medical profession. Therefore, the family's role is crucial.

As one of the most important motivational factors, the participants highlighted (69.6%) the financial reasons with a significant difference according to gender. This finding is in line with the results from the study conducted in Pernambuco, Brazil involving 1024 students (21) which indicated that 73.5% chose dental medicine for economic reasons. Students in Amman (14) and Teheran (11) did not share this view but they rather placed "the prestige of the dental profession" as the most important factor. The latter was found to be the second motive for choosing dentistry among the participants (61.3%). In Tunisia, Dental Medicine has long been recognized as a respectable profession with a high social status. The majority of the first-year dental students considered their future profession as prestigious (57.7%) and providing good income (63.1%). The students' perception and attitudes about the nature of their future profession were the same as the reasons for choosing it. This is in contrast with the results observed in a Bulgarian study (4). Nevertheless, the opportunity to help (human and noble) has also been among the influential factors (56.5%) for choosing dental medicine. These findings indicate that the content of the work and the profession itself are still important and determinant for choosing a dental career in our country. Finally, 57.7% of the first-year Tunisian dental students considered that becoming a dentist requires hard work. The first and second reasons given for abandoning dental

studies were respectively developing new opportunities (33.3%) and having health problems (31.5%). However, 85.7% declared that they would not try to transfer to another faculty and 16.7% ensured that nothing could interrupt their dental studies.

This study has obviously some limitations. First of all, the self-administered questionnaire was written in English. The latter is the third language in Tunisia. Students might not have understood the questions in the same way if they were in French or Arabic. In addition, it was taken from a Bulgarian study (4). Applying for a questionnaire in culturally different contexts could lead to bias and unreliable results (10). However, this self-administered questionnaire was easy to complete and did not need reasoning. This may explain the high response rate (77.9%). Secondly, this was a cross-sectional study. Therefore, it does not offer any longitudinal data. Thus, comparisons with other studies should be conducted with caution (22). However, all eligible first-year dental students were included which improves the representativeness of the participants (23). To control possible non-response bias, the questionnaire was distributed during practical work courses because attending these courses is compulsory. Finally, it could have been better if we had asked the participants whether they would apply again for dental medicine if they were making the choice again.

## CONCLUSION

This study showed that the top three motivational factors for choosing dental medicine in Tunisia were the financial stability, the prestige of the profession, and the opportunity to help. These findings seem to be consistent with researches led in different countries. Despite the focus on the economic reasons, helping people still represents a solid base for choosing dentistry.

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