

Dental Students' Motivation and their Perception of Profession's Future in Saudi Arabia

Latifa Alhawaish^{1*} and Rehab Allam²

¹Assistant Professor, Department of Pediatric Dentistry and Orthodontics, King Saud University, Saudi Arabia

²Lecturer, Department of Pediatric Dentistry and Orthodontics, King Saud University, Saudi Arabia

***Corresponding Author:** Latifa Alhawaish, Assistant Professor, Department of Pediatric Dentistry and Orthodontics, College of Dentistry, King Saud University, Riyadh, Saudi Arabia.

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Abstract

Aim: The current study centers on establishing the motivational factors behind selecting a career in dentistry by students in Saudi Arabia, with consideration also directed towards future practice. Moreover, the study seeks to analyze the potential concerns of dental students in regards their future profession.

Subjects and Methods: In the present study, the method implemented was an anonymous voluntary questionnaire, distributed by the researchers amongst a sample of fourth- and fifth-year students and interns pursuing their training at King Saud University's College of Dentistry.

Results: The total sample number was 270 students and interns with an almost equal gender distribution. Three main elements were considered motivation by participants to choose dentistry as a career and those were: flexibility, altruism and income, as well as society and relatives influence. Flexibility had a statistically significant higher influence on females in this sample. Working in governmental and private sectors was the most option selected by participants. The participants had some concerns regarding the future of dentistry in Saudi Arabia and the highest scores were for increasing number of dental schools and reduced job opportunities.

Conclusion: In line with this study's limitations, the conclusion may be drawn that dental students in Saudi Arabia, when questioned on the motivational factors driving them to pursue a career in dentistry, was seen to center on three key elements, namely the altruism factor, flexibility of the profession, and the relatives and society factors.

Keywords: Career/Career Plans; Dental Education/Dental Students; Motivation; Saudi Arabia

Introduction

Schools of Dentistry based in the KSA provide dentistry courses spanning five years (excluding preparatory year and internship training), with the prospect of earning a Bachelor of Dental Surgery (BDS). Such studies provide students with the career preparation required by the modern dentistry world through bringing together clinical training and both basic and advanced dental sciences. This program is similar to many programs in the middle east [1,2].

The factors driving career choice are recognized as complicated, with dentistry just as complex. A number of different motives may be considered when making the decision as to career choice, such as financial rewards, occupational nature, working conditions, and security [3-5]. Furthermore, factors underpinning the choice of dentistry have been examined in a number of different developed regions, although only a few have been carried out in developing regions. A number of rationales have been presented for the choice of dentistry as future career in the literature.

During more recent times, a number of different attributes pertaining to dental students have been examined in regards motivational factors. As an example, it was found in the study of Zadiac, *et al.* [6] that much attention is directed towards financial motivations, including in financial security and income, with low-priority factors including those of a person-oriented nature.

Despite there being an overall consensus pertaining to the range of motivational factors that could potentially influence dentistry as a chosen career path, it remains that, with the passing of time, motivational factors might change from one country to the next. Importantly, career choice is an important and ultimately fundamental decision, which has the potential to affect a person's whole future [1,5-8].

The majority of the studies examining the factors underpinning dentistry as a career choice have been completed in developed regions, including the United Kingdom, Denmark, France, and Brazil [7-10], with very few works published and providing information pertaining to the Middle Eastern region in regards to students of dentistry [1-3,11,12].

Moreover, there has been much acknowledgment to the emerging workforce as holding starkly contrasting expectations to those of other generations, with support suggesting that such expectations have a number of implications for health system performance and health professionals overall [1,2].

Furthermore, various investigations have come to establish that there is much differentiation amongst male and female students when considering their motives: for example, females seem to be more inclined to consider human factors, whereas males consider financial factors [1-3].

The completion of an in-depth analysis of the motivational factors affecting the choice of career, as demonstrated by dental students, could prove valuable in assisting health policy-makers to content dental students' needs. It has been ascertained that students' motivations, and understanding relating to such, could prove useful in assisting dental faculty to implement the most preferable and accurate recruitment tools [2].

In Saudi Arabia, a total of 26 dental schools are available (including both public and private schools), with education provided to 3,324 students across 15 schools in 2012.

In 1975, the College of Dentistry at King Saud University was established in Riyadh, recognized as the first university-based public dental institution in the KSA [2,13].

At the present time, the college is widely acknowledged by the Association of Dental Education in Europe (ADEE) and accredited by the National Commission for Academic Accreditation and Assessment (NCAAA).

In line with the number of dental schools being established and the increasing number of dental graduates, there has been the recognition of many different challenges facing learners, including the limited number of job opportunities and postgraduate training opportunities [11].

The challenges experienced by the present dental workforce has emphasized the need to garner insight into the concerns, plans and worries, as well as motivations, of dentistry students [11].

Despite there being a lack of other research centered on the various postgraduate specialties within the KSA, or those focused on motivations towards particular fields of study, thus far, no studies have been carried out in mind of testing and drawing a contrast in relation to the career choice factors and risks recognized by undergraduate dental students and interns in regards their chosen profession, their future or their plans following graduation.

Further investigations are recognized as fundamental, specifically in Arab groups. It has been acknowledged that significant numbers of students are applying and accordingly being admitted to a growing number of dental schools across the KSA, with such growth seen to have practical significance in regards the education and practice of the dental field. The global economic conditions and the job opportunities available have been commonly considered in this arena, with information relating to the factors behind choosing dentistry, the plans held by students, and what students recognize as possible future obstacles, will provide a key foundation for future education and workforce management for students in the dentistry field [14].

Accordingly, the current study centers on establishing the motivational factors behind selecting a career in dentistry by students in Saudi Arabia, with consideration also directed towards future practice. Moreover, the study seeks to analyze the potential concerns of dental students in regards their profession.

Subjects and Methods

The present study is a cross-sectional survey with all fourth and fifth year dental students included in addition to interns training in the dental hospital. The method implemented was an anonymous voluntary questionnaire, distributed by the researchers amongst a convenient representative sample of fourth- and fifth-year students and interns pursuing their training at King Saud University's College of Dentistry. Before gathering data, the College of Dentistry Research Centre (CDRC) was contacted in order to seek approval for the study. Furthermore, a pilot questionnaire was implemented in an effort to ensure understanding and validity, with a total sample of 10 students involved. Those involved in the pilot study were not included in the actual study.

When gathering the data, i.e. during the academic year spanning 2017 - 2018, the college was known to have enrolled a total of 257 fourth and fifth year students. Furthermore, 50 interns were also registered at the dental hospital in the college.

The design of the questionnaire was carried out in mind of gathering all of the necessary information whilst ensuring any overly long questions were avoided in order to ensure the number of participants remained as high as possible.

Research participation was achieved through the distribution of invitations, which provided an overview of the study aims whilst highlighting the voluntary, confidential and anonymous nature of the study. It further emphasized that, following participation, there would be no impact in terms of assessments, marks or subsequent research.

The questionnaire was devised in English, and encompassed a total of four main sections: the first sought to garner demographic data through a total of 8 questions, with the sample asked about their age, gender, high school, dental school level, and whether or not dentistry was their first choice when they came to apply at the university. Moreover, the sample was also questioned on whether or not there were any dentists in the family. Data relating to the level of education achieved by their parents was also gathered.

The second part of the questionnaire detailed a total of 10 statements explaining motivational factors underpinning a career in dentistry. The factors were established in consideration to past works explaining the key influences in choosing dentistry [2,5,8], such as dentistry as a secure career, dentistry as viewed as prestigious, assisting people, a good opportunity, self-employment, flexibility, high-income, family persuasion, a relative is a dentist, and high GPA.

The third section sought to evaluate the hopes of the students in regards the dentistry field and how they perceive their future profession to be. The options/choices outlined included academic institution, governmental sector, private practice, or a combination.

The final section centered on researching the degree to which subjects held concerns in regards their future profession, with four individual statements detailed in order to explain the potential problems causing worries for future dentists. The statements included a larger number of dental schools across the KSA, a greater degree of competitors, a lower number of job opportunities, and international economic changes and the way in which these impact income and salary.

The subjects were asked if they could provide some insight as to the extent to which they agree with the statements posed in the second and fourth sections, notably through the completion of a five-point Likert-type scale, ranging from 5 'to a great extent' through to 1 'not at all'. Questionnaire reliability was checked and the Cronbach's alpha coefficient was 0.84 for the scale assessing the motivational factors and it was 0.66 for the scale assessing the worries perceived by dental students.

SPSS version 22 was used in order to complete data management and statistical analysis, with descriptive statistics used in an effort to explain demographic data, whilst parametric tests were utilized in order to examine any statistically significant ($p \leq 0.05$) differences between different groups' scores. The application of the t-test was carried out in mind of examining the differences across two groups, whereas, when there were more than two groups, ANOVA was utilized. Additionally, when seeking to group motivational factors into associated clusters, factor analysis was carried out.

Results

The sample was made up of 225 undergraduate students across the College of Dentistry's two campuses at the King Saud University. Furthermore, a total of 45 interns were also involved in the study. The response rate garnered was (88.7%).

Almost half (43%) of the students had achieved their high school certificates from private schools, whilst (57%) were recognized as government school graduates. Two thirds of the sample (66.3%) reported that dentistry was their first-choice college when graduated from high school.

When questions on whether they had any family in the dentistry profession, the vast majority (83%) said this was not the case, with only (17%) answering affirmatively. Furthermore, the sample were questioned on the level of education achieved by their parents, with almost half answering that a bachelor's degree was held by their father, with roughly the same percentage stating this was the case for their mother (49% and 47%, respectively). The demographic data collected can be seen displayed in table 1.

		Frequency	Percent %
Gender	Male	144	53.3
	Female	126	46.7
Type of secondary school you graduated from	Governmental	151	56.1
	Private	118	43.9
Level at dental school	Fourth year	111	41.3
	Fifth year	113	42.0
	Intern	45	16.7
Was dentistry your first choice	Yes	179	66.3
	No	91	33.7
Any of your parents or siblings are dentists	Yes	45	16.7
	No	225	83.3
Father's level of education	None	2	.7
	Primary	16	5.9
	Intermediate	14	5.2
	High school	36	13.3
	Bachelor degree	133	49.3
	Higher education	69	25.6
Mother's level of education	None	10	3.7
	Primary	21	7.8
	Intermediate	18	6.7
	High school	69	25.6
	Bachelor degree	127	47.0
	Higher education	25	9.2

Table 1: Sample's demographic data.

In the second section, a total of 10 motivational factors were detailed for review by the subjects in an attempt to establish their degree of agreement spanning the Likert-type scale, 1 - 5. Across the ten motivational factors included in the sample, the mean score was calculated, as well as for males and females separately. Subsequently, calculation centered on fourth- and fifth-year students and interns with the aim of identifying any notable differences between the groups, such as in regards school level or gender, for example. It was found that the three most commonly cited motivational factors were helping and treating people (4.28), dentistry is recognized as being highly prestigious (3.98), and dentistry provides high income (3.79). Importantly, these same factors were recognized as the top three motivational drivers across all groups, i.e. males and females, and fourth-, fifth- and internship-year students. Notably, the factor 'I chose dentistry because of family persuasion' was found to have the lowest mean score at (1.86).

When examining the males and females in regards motivational factors, a statistically significant difference was identified, with females assigning a higher score to 'dentistry allows self-employment' and 'working hours are more flexible when compared to other health professions'(3.73 and 3.13, respectively P = 0.012 and 0.028). Importantly, when considering the other factors in regards any difference between males and females, or even across the different educational levels of the subjects, a statistically significant difference was not identified. The findings in this regard can be seen detailed in tables 2-4.

Motivational factor to choose dentistry as a career	Score (1-5)
I enjoy helping/treating people	4.28 (1.048)
Dentistry is highly prestigious	3.98 (1.082)
Dentistry provides high income	3.79 (1.086)
Dentistry allows self-employment	3.55 (1.09)
Dentistry is a secure career	3.47 (1.13)
Good job opportunities nationally and internationally	3.44 (1.135)
My high school GPA influenced me to choose dentistry	3.08 (1.534)
Working hours are flexible when compared to other health professions	2.95 (1.276)
One or more of my relatives are dentists	2.14 (1.527)
I chose dentistry because of family persuasion	1.86 (1.25)

Table 2: The mean scores given to each motivational factor by all sample. Mean (SD).

Motivational factor to choose dentistry as a career	Score (1-5)
Male	
I enjoy helping/treating people	4.2 (1.085)
Dentistry is highly prestigious	3.97 (1.044)
Dentistry provides high income	3.79 (1.106)
Dentistry allows self-employment	3.39 (1.132)*
Dentistry is a secure career	3.39 (1.126)
Good job opportunities nationally and internationally	3.33 (1.116)
My high school GPA influenced me to choose dentistry	2.93 (1.554)
Working hours are flexible when compared to other health professions	2.79 (1.346)*
One or more of my relatives are dentists	2.09 (1.448)
I chose dentistry because of family persuasion	1.89 (1.212)
Female	
I enjoy helping/treating people	4.37 (1.002)
Dentistry is highly prestigious	3.99 (1.128)
Dentistry provides high income	3.78 (1.067)
Dentistry allows self-employment	3.73 (1.015)*
Good job opportunities nationally and internationally	3.57 (1.148)
Dentistry is a secure career	3.55 (1.132)
My high school GPA influenced me to choose dentistry	3.25 (1.50)
Working hours are flexible when compared to other health professions	3.13 (1.173)*
One or more of my relatives are dentists	2.2 (1.619)
I chose dentistry because of family persuasion	1.82 (1.292)

Table 3: The mean scores given to each motivational factor by males and females. Mean(SD).

* indicates significant difference ($p \leq 0.05$).

Motivational factor to choose dentistry as a career	Score (1-5)
Fourth year	
I enjoy helping/treating people	4.5 (0.875)
Dentistry is highly prestigious	4.03(1.088)
Dentistry provides high income	3.87 (1.076)
Dentistry allows self-employment	3.76 (0.956)
Good job opportunities nationally and internationally	3.74 (1.093)
Dentistry is a secure career	3.6 (1.102)
Working hours are flexible when compared to other health professions	3.0 (1.327)
My high school GPA influenced me to choose dentistry	2.98 (1.572)
One or more of my relatives are dentists	2.05 (1.495)
I chose dentistry because of family persuasion	1.84 (1.247)
Fifth year	
I enjoy helping/treating people	4.2 (1.079)
Dentistry is highly prestigious	4.12 (1.084)
Dentistry provides high income	3.86 (1.073)
Dentistry is a secure career	3.45 (1.157)
Dentistry allows self-employment	3.44 (1.157)
Good job opportunities nationally and internationally	3.24 (1.128)
My high school GPA influenced me to choose dentistry	3.21 (1.515)
Working hours are flexible when compared to other health professions	2.96 (1.294)
One or more of my relatives are dentists	2.29 (1.62)
I chose dentistry because of family persuasion	1.91 (1.306)
Intern	
I enjoy helping/treating people	3.98 (1.252)
Dentistry is highly prestigious	3.51 (0.968)
Dentistry provides high income	3.40 (1.095)
Dentistry allows self-employment	3.31 (1.164)
Good job opportunities nationally and internationally	3.22 (1.126)
Dentistry is a secure career	3.16 (1.098)
My high school GPA influenced me to choose dentistry	2.96 (1.507)
Working hours are flexible when compared to other health professions	2.77 (1.118)
One or more of my relatives are dentists	1.98 (1.373)
I chose dentistry because of family persuasion	1.71 (1.079)

Table 4: The mean scores given to each motivational factor by fourth, fifth year and interns. Mean(SD).
 * indicates significant difference ($p \leq 0.05$).

The participants were questioned on the sector they considered most attractive for working in when pursuing their career in dentistry, with 'governmental and private' found to be the most popular sector across (35.6%) of the subjects, with (27%) showing a preference for governmental hospitals, whilst (23%) stated they would seek to work in a private or academic clinic. The detailed statistics in this regard can be seen in table 5.

	Frequency	Percent	
where do you wish to practice dentistry after your graduation?	Governmental sector	75	27.8
	Private sector	14	5.2
	Be self-employed (establish my own private clinic)	16	5.9
	Academic institution	27	10.0
	Governmental and private	96	35.6
	Academic and private	62	23.0

Table 5: The frequency and percentage of each future work field indicated by participants.

The questionnaire’s final section sought to evaluate the degree to which the participants had concerns regarding their future, with four different statements provided. Agreement was found to be most apparent in line with the statements ‘the increasing number of dental schools in our country’, which achieved a mean score of (4.16). The factor seen to be of second most concern related to the lower abundance of job opportunities, which achieved a mean score of (4.12), with a larger number of competitors in the postgraduate arena achieving a score of (4.01).

When examining males and females across their level of concerns in regards the issues outlined, including the number of competitors on higher education seats, reduced job opportunities, and global economic status, a statistically significant difference was identified, with males found to achieve a lower mean score than females (P = 0.007, 0.05, 0.04 for each item respectively). The findings relating to this question can be seen in greater depth in tables 6-8.

Indicate the extent to which the following worries you in relation to the future of the profession	Score (1-5)
The increasing number of dental schools in our country	4.16 (1.211)
The decreasing number of job opportunities	4.12 (1.169)
The increasing number of competitors on postgraduates’ seats	4.01 (1.216)
The international economic status and its influence on salaries and income	3.28 (1.278)

Table 6: The perceived worries by participants on the future of the career.

Indicate the extent to which the following worries you in relation to the future of the profession	Score (1-5)
Male	
The increasing number of dental schools in our country	4.05 (1.307)
The increasing number of competitors on postgraduates’ seats	3.83 (1.258)*
The decreasing number of job opportunities	3.99 (1.236)*
The international economic status and its influence on salaries and income	3.13 (1.29)*
Female	
The increasing number of dental schools in our country	4.28 (1.082)
The decreasing number of job opportunities	4.27(1.073)
The increasing number of competitors on postgraduates’ seats	4.22 (1.135)
The international economic status and its influence on salaries and income	3.46 (1.248)

Table 7: The perceived worries by males and females’ subgroups on the future of the career.

* indicates significant difference between males and females (p ≤ 0.05).

Indicate the extent to which the following worries you in relation to the future of the profession	Score
Fourth year	
The increasing number of dental schools in our country	4.21 (1.142)
The decreasing number of job opportunities	4.05 (1.180)
The increasing number of competitors on postgraduates' seats	3.85 (1.225)
The international economic status and its influence on salaries and income	3.32 (1.173)
Fifth year	
The decreasing number of job opportunities	4.13 (1.135)
The increasing number of dental schools in our country	4.06 (1.331)
The increasing number of competitors on postgraduates' seats	4.0 (1.273)
The international economic status and its influence on salaries and income	3.12 (1.380)
Intern	
The increasing number of competitors on postgraduates' seats	4.40 (0.963)
The decreasing number of job opportunities	4.33 (1.148)
The increasing number of dental schools in our country	4.24 (1.069)
The international economic status and its influence on salaries and income	3.62 (1.230)

Table 8: The perceived worries by fourth year, fifth year and interns subgroups on the future of the career.

Factor analysis was performed and showed that the 10 factors are explained 60.2% of the variance. Factors 1 to 5 explains 26.14% of the variance, while factors 6 and 7 accounted for 17.82% of the variance, and factors 8 - 10 explained the remaining 16.23% of the variance. The factors and their detailed variance are explained in table 9.

Motivational Factor	Factor 1	Factor 2	Factor 3
Dentistry is a secure career	.781		
Good job opportunities nationally and internationally	.774		
I enjoy helping/treating people	.522		
Dentistry is highly prestigious	.712		
Dentistry provides high income	.653		
Working hours are flexible when compared to other health professions		.752	
Dentistry allows self-employment		.764	
One or more of my relatives are dentists			.655
I chose dentistry because of family persuasion			.857
My high school GPA influenced me to choose dentistry			.508
Percentage of variance explained	26.14	17.82	16.23
Percentage of cumulative variance explained	26.14	43.966	60.199

Table 9: Factor loadings on the career's motivational factors.

Factor 1 which can be named (Finance/altruism) is a combination of factors that involve the financial aspects of dentistry and its security as a career and helping people or providing treatment. Factor 2 (flexibility) involves factors describing the flexibility of dentistry. The last factor (society and people), is made up of the factors showing the influence of the society and relatives in choosing dentistry as a career.

Table 10 details the mean score values of males and females for each of the three clustered motives and shows that females mean scores were higher than males in factor number 2 (the flexibility factor).

		N	Mean	SD	p-value
Altruism and finance	Male	144	18.58	4.05	.199
	Female	126	19.21	4.07	
Flexibility	Male	144	6.10	2.17	.005*
	Female	126	6.79	1.85	
Society and relatives	Male	144	6.91	2.86	.407
	Female	126	7.21	3.16	

Table 10: Motivational factors scale means by gender of the participant.

* indicates significance.

Discussion

This study has been centered on establishing the key motivational factors underpinning Saudi dental students and interns in pursuing dentistry, as well as the concerns held in their field regarding the future of the career. Despite only a selected few studies having been carried out in the Middle Eastern region, none conducted thus far have directed attention towards the aforementioned aims alongside a Saudi population.

The response rate achieved by this investigation was recognized as acceptable and providing a good degree of reliable data. The sample was relatively evenly distributed in terms of gender, which differs to other works carried out in the dental field, which tend to have a larger proportion of female subjects [3,5,8,15-17]. Furthermore, in regards previous education, more than half of the dentists were governmental school graduates, with the remaining half educated through private school. Similar to several previous studies [2,3], it was found that two thirds of the sample had dentistry in their minds as a first-choice college when applied to the university.

When questioned on the education achieved by their parents, almost half of the subjects highlighted that both parents had a bachelor's degree, with just one-quarter of the sample stating higher education as achieved by their father. These results were predicted due to the fact that a number of other researches have demonstrated that the majority of dental students come from families who have pursued and prioritized education [2,10,15].

In addition, when questioned on whether or not family had also pursued a career in dentistry, approximately one-quarter stated that this was the case for at least one parent or sibling. This finding is greater than that achieved in the 2014 study of Halawani [2], who stated that only 6% of the sample were in this position, although that study notably only posed the question in regards parents and not siblings.

In contrast, however, in a research carried out amongst Saudi students, the findings were found to be comparable with those found in this work, with (13.1%) of the subjects seen to have a parent working in the healthcare industry [14].

In a study carried out in Japan, it was found that 60% of the dental students surveyed had a parent working in the same field, which is a significant number that highlights dental students as potentially attracted to the dentistry field as a result of their parent's history in this regard, which could have made the profession look attractive [18].

Career choice has been suggested as a critical choice with a clear effect on the life pattern of an individual, which therefore emphasizes the need to garner greater insight into the sociodemographic background and priorities of those seeking to pursue a career in the dental field [12].

The need to consider those worries associated with the attitudes and motivations of students in regards their future profession need to be taken into account in combination with economic, social and political settings [19]. Furthermore, there is a need for this to be continuously updated in line with the changes witnessed in health policy and in line with the ever-growing needs of society [20,21].

A number of different motivational factors have undergone examination in various works in different regions, with a change in priorities witnessed in line with the area or society of the study. Furthermore, although some students are seen to choose dentistry whilst possessing realistic expectations and extensive knowledge, others, in contrast, could ultimately end up to a career path they had been pushed towards [12].

The results collected emphasize that the greatest mean score was achieved by 'willingness to help/treat people', which was the case across both genders and with all groups. This finding is seen to support a number of other studies that have highlighted the "people factor" as being significantly motivational for students when opting for a dentistry career [2,10,12,14,19].

Therefore, this finding is not unexpected when considering the need to care for and treat patients is pivotal in this particular career (i.e. dentistry) [23].

Moreover, in a 2014 international investigative report, it was found that altruism is an essential motivation factor due to the fact that dentistry is viewed as being a healing profession [24].

Although the definition of the term 'altruism' might differ across populations and sectors, it may nonetheless be stated that altruism may be seen across the completion of clinical research, teaching, and access to care and health within the community [24]. Moreover, it is common for the term to refer to selfless concern and dedication to others [25].

In other studies, carried out across communities viewed as being economically unbalanced, the greatest motivation and priority was assigned to the statement 'money or economic factor', as has been established in the study carried out by Banabilh, 2013 [12]. The income factor was found to achieve a mean score of (3.79) in this investigation, which further highlights a greater degree of insight into the financial pressures experienced by students.

In this regard, in North America, the view that guaranteed jobs and high income are achieved by dentists is a view widely adopted [24]. Nonetheless, such an aspect can differ in accuracy from one region to the next, as well as between job markets and in line with economic conditions. It is valuable to note that, when considering dental students in Malaysia, academic factors were seen to be more important, with this result seen to go against the majority of other works carried out in this domain where altruism and flexibility factors are more essential [26].

In this study, the second most commonly rated motivation for dental students was 'dentistry is highly prestigious', with this finding seen to provide support in line with what has been documented in other contexts, including Brazil, Jordan, Morocco, Saudi Arabia and Yemen [1-3,10,12]. This has also been highlighted in an international review report, where factors such as financial reward and prestige have been identified as key factors underpinning students' motivation in various countries [24].

The factor 'I chose dentistry because of family persuasion' was found to be least important, achieving a mean score of (1.86). This provides support for other internationally published data, although family persuasion was seen in the Japanese and Nigerian studies as being amongst the most important when dental students were questioned in this regard [18,27].

Importantly, however, societal and familial influence cannot be disregarded, particularly in societies such as that of the Saudi Arabia, although the effect of other motivational factors might very well have been much stronger in the present sample, with family persuasion is less important. When considering males and females in line the motivational factors, a statistically significant difference was found, with higher scores assigned by females in regards 'dentistry allows self-employment' and 'working hours are more flexible when compared to other health professions' (3.73 and 3.13, respectively). The factor analysis further highlighted this statistically significant difference.

It has been established that, overall, females tend to be more likely to be influenced by social factor or family factors [24]. This may be rationalized when considering that job flexibility is required and prioritized by females as a result of the responsibilities females tend to have in regards their families.

The questionnaire's third part sought to identify the hopes of dental students following graduation, with this investigation recognized as the first of its type to evaluate this particular factor amongst dental students. The findings emphasized that in excess of one-third (35%) of the sample showed a preference for working in private and governmental clinics, with such a view potentially explained by governmental jobs providing stability and job security, whilst private practices could help to achieve a good reputation and high income in the field.

Saudi Arabia is recognized as a region demonstrating much development, with this seen to encompass all elements, including the health and education systems. In mind of the planned vision outlined by the country, which is set to be achieved by 2030, a number of changes have already been implemented. As a result, in the present study, a number of different points have been identified that could highlight changes in the future and which sought to establish the views of dental students at the present time.

In a research carried out in India, it was found by the authors that the number of students enrolling in dentistry was decreasing, with this finding recognized as being owing to the significant increase of dentists in the country. It was held that this could have been responsible for discouraging students to pursue such a career owing to the belief that their future earnings would not be high enough [28].

The number of schools teaching dentistry within the KSA has been seen to surge during the period spanning 1975 - 2013 [13,29], with such a significant increase in the number of dental schools causing a significant increase in the number of students pursuing dentistry. As such, graduates of these colleges are now experiencing difficulties in securing employment within the public health arena, which was not a problem in earlier times. Nonetheless, it remains that the population–dentist ratio is set to improve [29]. In this regard, it is worth noting that, in 1987, the ratio of dentist to population at this time was 1:8906; in 2014, however, this ratio was seen to be 1:2666 [30].

In a research carried out in Saudi Arabia, centered on the dental workforce, it was found that, despite there being an increase in the number of dental schools and yearly graduates, the majority of the dental care provided in the country was by non-Saudi professionals in both public and private sectors. It was stated by the researchers in this case that this could be responsible for the significant unemployment rate increase across local dentists [29].

Much economic growth and increases in population have been witnessed across the KSA, which, in turn, should have increased job opportunities and the dental workforce. Consequently, private sector development assistance and self-employment are seen to be fundamental when it comes to attracting new generations [29].

There is a need to consider any limitations inherent in this investigation, with the students in this work recognized as recruited from one dental school, notably that of King Saud University. Accordingly, it is essential to acknowledge that a larger sample from different dental colleges could prove valuable to future studies, potentially highlighting the differences amongst such schools. Furthermore, dental graduates in the Middle East could also be included in a larger comparative work, which might also help in gathering essential data across both health and higher education fields in the region.

Conclusion

In line with this study's limitations, the conclusion may be drawn that dental students in the KSA, when questioned on the motivational factors driving them to pursue a career in dentistry, was seen to center on three key elements, namely the altruism factor, flexibility of the profession, and the relatives and society factors. Additionally, the students and interns noted that their primary preference for a future job was a governmental-private combination. At the present time, students of dentistry seem to be well-informed when it comes to the various challenges concerning the future of the dental profession, including the greater number of dental schools coupled with the lower number of job opportunities.

Conflict of Interest

None declared.

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