

Working environment and specialty of choice chosen by the dental students at Prince Sattam Bin Abdulaziz University, Saudi Arabia: A cross-sectional study

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Abstract

Objectives: This cross-sectional study was conducted to explore the specialty chosen by the dental students for postgraduate studies and the future aspirations of students in a Saudi Arabia dental college. **Materials and Methods:** Of the total number of 120 questionnaires that were distributed, 107 subjects responded with selective responses and a response rate of 89%. A descriptive survey was conducted using one of the questionnaires among the students of dentistry at the dental college, Prince Sattam Bin Abdulaziz University, Al-Kharj among male students (men's college) for a period of 2 months. The data were analyzed using the statistical software program, predictive analytics software Statistics version 22.0 (SPSS Inc., Chicago, IL, USA). **Results:** A hundred and seven of the 120 students took part in the study. A "passion for orthodontics" (42.9%) was reported to be the most important factor that influenced the decision to pursue specialty training in orthodontics followed by "intellectual stimulation/challenge" (25%). The decision to pursue orthodontics was made by 32.1% of the respondents while in dental school; 35.7% took the decision after completing dental school during private practice and 14.3% during a dental residency, whereas 3.6% had already decided before initiating their dental school studies. Working in a private practice environment was preferred by 11 residents (39.3%). Only four residents indicated that they would most likely be practicing in an academic setting while 10 were undecided. **Conclusions:** The zest for nonclinical specialties is less among students at Prince Sattam Bin Abdulaziz University's dental college, Saudi Arabia.

Key words: Dental students, motivations, Saudi Arabia, speciality, working environment

INTRODUCTION

The dental profession plays a significant role in the service of the society, and the selection of dentistry as a career is a critical decision in an individual's life, affecting both one's social status and economic status.^[1] The health care workforce is a vital resource within health care,^[2] with dentistry being no

exception.^[3] Understanding the career motivations and expectations is crucial so that, where possible, the students may be harnessed in the provision of health care.^[4,5] Dental students are the future dental professionals of the nation and therefore, demographic studies on them provide an insight into their characteristics.^[6] A detailed observation of

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the career motivations of dental students provides a better insight into their role in society and leads to the debate on dental education and practices.^[7] Dental students are the future dental professionals of the nation and therefore, demographic studies on them provide an insight into their characteristics.^[8] One of the primary steps for do so is by guiding the dental students to every single dental specialty available. Dental counseling in its current format is mainly directed toward identifying students' poor academic performance while no counseling was applied to explore students' academic talents and the potential of succeeding a specific postgraduate dental program to our knowledge.^[9,10] Postgraduate dental education is an important pillar to improve the health care sector in Saudi Arabia. Advancing the quality of clinical skills as well as the research output will drive the medical care and dental care forward by improving the service level, patient satisfaction, and reducing the complication rate.^[11,12] These days, the number of dental graduates in Saudi Arabia is exceeding 2,500 from over 30 dental schools every year^[13,14] However, the general distribution to the different working domains has not been studied nor planned. The workforce domain in Saudi Arabia is divided into clinical service providers and basic science researchers. The clinical specialty in dental practice include oral maxillofacial surgery (OMFS), orthodontics, pediatric dentistry, prosthodontics, periodontics, restorative dentistry, radiology, and endodontics while basic science specialties include dental biomaterials, oral biology, community, and pathology. Although the clinical service is provided at different health care centers, the research aspect is considered to be weak.^[15]

The Chief Dental Officer for England in 1994 published a report outlining the future for specialist dental services. The report recommended that specialist dental services should be delivered in dental practices based in the community settings rather than in hospitals, except maxillofacial surgery, which was recommended to continue to be hospital-based. Then on, an expansion of specialist practices, particularly orthodontics followed by surgical dentistry and restorative care has been observed. The continuing need for consultants within the hospital dental services and academic dentists within universities has also been perceived.^[16]

So the present study was conducted to know the working environment and specialty of choice chosen by the dental students at Prince Sattam Bin Abdulaziz University, Saudi Arabia.

MATERIALS AND METHODS

For the first time in the history of Prince Sattam Bin Abdulaziz University's dental college, a cross-sectional survey was conducted with an aim of evaluating and exploring the specialty chosen by the dental students for postgraduate studies, future career choices, and intentions. An epidemiological descriptive survey was conducted among the second-year students to final-year male students at Prince Sattam Bin Abdulaziz University's dental college (Saudi male dental college) Al-Kharj. Ethical approval was obtained from the Institutional Review Board (IRB), Prince Sattam Bin Abdulaziz University's dental college. Consent was obtained from the study subjects after explaining about the study elaborately. The subjects were second-year to final-year students, considering the fact that it might be the apt time for them to make decisions in choosing their specialty and future working environment. As the dental college was meant exclusively for male Saudi Arabian citizens, the study was confined wholly to male subjects. The first-year students were excluded from participating in the study as it was felt that it would be too early and difficult for them to get a clear idea of the working environment and future specialty. Of a total of 124 students, 7 were absent on the day of conducting the study and 10 subjects failed to respond to the questionnaire. Thus, the final sample size comprised 107 study subjects. The research instrument was a self-administered questionnaire, which was already pretested in other previous studies.^[16,17] This survey was conducted during regularly scheduled class sessions in the second semester academic year 2014–2015 with an average time of 10 min. The questionnaire was designed to increase the response rate and minimize missing data. The questionnaire consisted of six open questions concerning the specialty of choice and future choice of working environment. The latter included the type of practice intended after graduating (academics or clinical practice both), the reasons for this choice, and intentions to pursue a specialist career. The questions were selected from previous similar studies^[16,17] and adapted to the Prince Sattam Bin Abdulaziz University Dental College context. The data were analyzed using the statistical software program, Predictive Analytics SoftWare (PASW) Statistics version 22.0 (SPSS Inc., Chicago, IL, USA).

RESULTS

As data revealed from the study in Table 1 and Figure 1, the maximum number and percentage of students had chosen Orthodontics (23) as their specialty of

choice for postgraduate studies followed by Oral and Maxillofacial Surgery (21), Prosthodontics and Implantology (13), other departments (12), Conservative Dentistry and Endodontics (7), Periodontics (6), and the least preference for Pedodontics (3). Twenty-two students had not chosen their specialty yet. 3.6% of the third-year students, 4% of the fourth-year students, and 20% of the final-year students had chosen Conservative Dentistry and

Endodontics as their specialty for future postgraduate study while none of the second-year students had chosen this specialty for their future postgraduate study.

As shown in Table 2 and Figure 2, 14% of the second-year and third-year students, 8% of the fourth-year students, and none of the final-year students had the intention to work for private dental colleges while 14% of the second-year students, 32% of the third-year students, 4% of the fourth-year students, and none of the final-year students had the intention to work under the Ministry of Higher Education after their specialization. 35% of the second-year students, 8% of the fourth-year students, 4% of the final-year students and none of the third-year students had the intention to work for the Ministry of Health only while 8% of the fourth-year students, 28% of the final-year students and none of the second- and third-year students had the intention to do private practice after their postgraduate studies. 48% of the second-year students, 36% of the third-year students, 72% of the fourth-year students, and 60% of the final-year students had the intention to work in the field of academics, under the Ministry of Health, and do private practice at the same time. 14% of the second-year students, 18% of the third-year

Table 1: Specialty of choice chosen by the dental students at Prince Sattam Bin Abdulaziz University

Branch of specialty	II BDS (n=29) (%)	III BDS (n=28) (%)	IV BDS (n=25) (%)	V BDS (n=25) (%)
Conservative Dentistry and Endodontics	0 (0)	1 (3.6)	1 (4)	5 (20)
Oral and Maxillofacial Surgery	5 (17.2)	6 (21.4)	10 (40)	0 (0)
Orthodontics	10 (34.5)	3 (10.7)	3 (12)	7 (28)
Pedodontics	0 (0)	1 (3.6)	1 (4)	1 (4)
Periodontics	1 (3.4)	1 (3.6)	1 (4)	3 (12)
Prosthodontics and Implantology	0 (0)	8 (28.6)	3 (12)	2 (8)
Other departments*	4 (13.8)	2 (7.1)	3 (12)	3 (12)
Not decided yet	9 (31)	6 (21.4)	3 (12)	4 (16)

*Oral medicine and oral diagnosis, temporomandibular therapy, oral pathology, public health

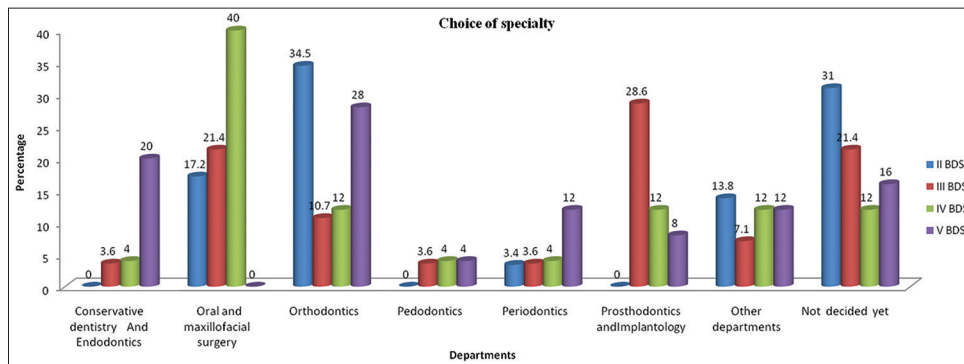


Figure 1: Specialty of choice chosen by the dental students at Prince Sattam Bin Abdulaziz University

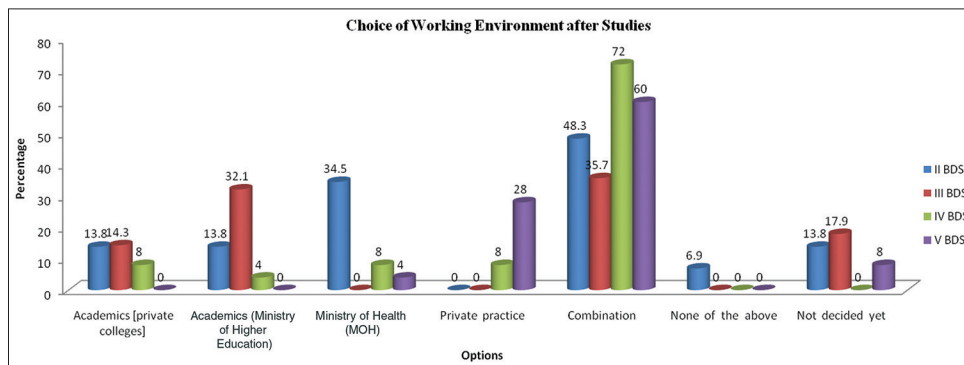


Figure 2: Working environment chosen by the dental students of Prince Sattam Bin Abdulaziz University

Table 2: Working environment chosen by the dental students at Prince Sattam Bin Abdulaziz University

	II BDS (n=29) (%)	III BDS (n=28) (%)	IV BDS (n=25) (%)	V BDS (n=25) (%)
Academics*	4 (13.8)	4 (14.3)	2 (8)	0 (0)
Academics**	4 (13.8)	9 (32.1)	1 (4)	0 (0)
MoH***	1 (3.4.5)	0 (0)	2 (8)	1 (4)
Private practice	0 (0)	0 (0)	2 (8)	7 (28)
Combination	14 (48.3)	10 (35.7)	18 (72)	15 (60)
None of the above	2 (6.9)	0 (0)	0 (0)	0 (0)
Not decided yet	4 (13.8)	5 (17.9)	0 (0)	2 (8)

*Private colleges, **Ministry of Higher Education, ***Ministry of Health

students, and 8% of the final-year students were yet to make their decisions in choosing their working environment while none of the fourth-year students remained undecided about their choice. One interesting finding was among 7% of the second-year students who had made the choice of not choosing any of the conventional working environments.

DISCUSSION

Distributing the health care force in the kingdom is one of the most important missions needed in the community. One of the primary steps to do so is by guiding the dental students to every single dental specialty available. Dental counseling in its current format is mainly directed toward identifying students' poor academic performance while no counseling is applied to explore students' academic talents and the potential of succeeding a specific postgraduate dental program, to our knowledge. In addition, students are mainly driven to attend local seminars and conferences with speakers from all over the world with different topics in dentistry but a direct program mainly designed to guide undergraduate dental students to those specialties is still missing.^[15]

At present, postgraduate dental education (PGDE) is a domain of interest to most dental graduates. The objectives of PGDE varies but it includes optimizing the health care level, increasing research production, distributing the service in a larger surface area in the kingdom, and increasing the specialist to patient ratio around the kingdom.

Different factors contribute to the PGDE preference. Aldilighan *et al.* suggested a few of them such as gender being a major one, marital status, and the field of interest that can fit the social needs. Furthermore, the financial income, potential of growth, and the stressful

working style are other factors to consider. They also found in another study that females leaned more toward Orthodontics, Pediatrics, Endodontics, and Restorative Dentistry with local PGDE as more preferred due to the demanding social and family needs when compared to studying abroad. On the other hand, male students preferred Orthodontics, Pediatrics, and Endodontics programs as these specialties were thought to be more challenging and lucrative.^[15]

In the study conducted at Prince Sattam Bin Abdulaziz University's dental college the most preferred branches of choice for postgraduate study was Orthodontics, Oral and Maxillofacial Surgery, and Prosthodontics and Implantology. This was different from the previous study conducted by Drugan *et al.* where male students preferred Orthodontics, Pedodontics, and Endodontics programs as they were thought to be more challenging and lucrative^[16] and a previous study conducted by Mazen *et al.* in Saudi Arabia where the most preferred specialty by the dental students was Oral and Maxillofacial Surgery (25%) than Orthodontics and other specialties. The preference for other nonclinical and basic science specialties among the students in the present study was 21%, which was comparatively more than the previous studies. The general preference of dental practice to basic science specialties is almost negligible, which presented only 6% in the study sample of Chan *et al.* compared to over 75% who preferred clinical training^[18] and 9% presented by another previous study in Saudi Arabia by Mazen *et al.*^[15] A higher percentage of students (79%) in the present study had clear ideas on which specialty to choose than in the previous study conducted where only 49.5% of the students were able to make decisions on their future specialty of choice.^[15] 8.41% of the students preferred private practice and only 3.73% of the students had plans to work under the Ministry of Health in spite of the fact that dental treatment is provided free of cost by the government; however, this policy of the government may explain the reason as to why a majority of the students (54%) had made a safe preference to work under the Ministry of Health and at the same time do private practice. An expectation of future change of this policy by the government may explain the reason for 10% of the students having not decided their working environment yet. The establishment of a "PGDE counseling program" might be necessary as exploring students' academic skills and their potentials during undergraduate training can be a basic pillar toward the appropriate specialty. Thus, a strong research-based infrastructure is necessary

in every dental teaching institute while accounting for the influence of important people in students' lives. The influence of other family members, faculty mentors, and family dentists are all hypothesized to affect student's career plans and potentially modify the influence of debt.^[19-23]

Increased awareness of the importance of pursuing postgraduation, its demand in the society, and better income, which was associated with it, as compared to a doctor with no postgraduation were seen in students in this study. This reflected their attitude toward postgraduation in general.^[24]

Hence, further studies are still needed along this line in order to orient the students to postgraduate dental education in general and research-based studies in particular. The present study was conducted on a limited sample size. Further studies are awaited with wider sample sizes in the future to validate the results.

CONCLUSION

The zest for nonclinical specialties is less among students at Sattam Bin Abdulaziz University's dental college, Saudi Arabia. Factors that contributed to this finding could have been the lack of knowledge about a career in nonclinical specialties compared to clinical specialties that are more established and popular.

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Conflicts of interest

There are no conflicts of interest.

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