

Research Article

Perception and Attitude of Dental Students and Graduates towards Business Management as a Subject in the Dental Curriculum

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Abstract: Background: In the past two decades, dentistry has transformed into a market-driven, entrepreneurial industry; consequently, the next generation of dentists must demonstrate proficiency in the disciplines of dental economics.

Objective: To identify the attitude, awareness, and willingness of final-year dental students and dental graduates regarding dental business management as a subject in dentistry.

Materials and Methods: This cross-sectional study was conducted from April 22 to September 22, with the approval of the IRB of CMH Lahore Medical College. The survey was conducted using online questionnaires developed by the authors and sent to the final-year dental students and young dental graduates in private and public dental colleges. The first part targeted demographics, and the second part dealt with attitude, awareness, and willingness regarding dental business management as a subject.

Results: A total of 281 people responded, with 48.6% males and 53.4% females. Lack of business knowledge (n=198, 70.5%) and a lack of funds (n=157, 55.9%) were key obstacles. Most respondents were slightly aware (n=141, 50.2%) of the criteria for setting up a dental practice. 95.7% (n=267) were not taught dental business management, nor had any seminars (n=187, 66.5%) or workshops (n=184, 65.5%). Most respondents agreed (n=243, 86.4 %) that business management will help them establish a successful practice. A significant difference was observed between private and public institutions regarding lack of funds, confidence, and communication skills.

Conclusion: Most students had favorable opinions on dental business management as a subject in dentistry. We must teach aspiring dentists both dental education and business management at the same time.

Keywords: Business, Curriculum, Dentistry, Financial Management, Management, Marketing, Practice.

INTRODUCTION

Dentistry, in the past two decades, has evolved into a market-oriented entrepreneurial industry; therefore, it is vital for the next generation of dentists to show dexterity in the disciplines of dental economics [1]. Dental graduates typically have a strong foundation in clinical abilities and are therefore expected to handle the diagnosis, examinations, and treatments of oral diseases; however, many dental education systems still lack when it comes to establishing and managing future clinic setups; therefore, young dentists encounter difficulties and financial challenges once they enter the practical world [2].

A previously conducted study by Joseph G. Unger, DDS, reported that the majority of students, after graduation, did not feel adequately prepared for the management and marketing aspects of their dental practices. As a result, educating young

dentists about dental business management is critical, as many graduates lack the understanding needed to build and sustain a successful business [2, 3].

Dental business management means the series of steps, measures, practices, and procedures other than clinical care that help dentist's turn education into a successful practice [4]. Dental economics is a complete subject that deals with the application of business management and economics to the field of oral health. Furthermore, business management entails more than profit maximization; it also includes day-to-day operations such as clinic management as a practitioner and owner. It entails innovation and marketing, as well as coordination and long-term planning [5]. Every dentist who wants to set up a private clinic must understand the P-O-L-C framework (Planning, Organizing, Leading, and Controlling) of strategic planning; it is fundamental knowledge for anyone with a vision and mission who hopes to achieve their goal for successful business management [6].

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First-world countries have started providing their dental students with a sufficient business background. Countries such as the United States, Canada, and the United Kingdom have introduced courses and dual degree options for dental students, allowing them to complete both their dental degree and a master’s degree or MBA. In Canada, the University of Columbia offers a certificate in dental practice management [7]. Furthermore, universities in the United States, such as Harvard School of Dental Medicine, established a dual degree program in MBA and DMD a decade ago [8]. Many other universities follow in their footsteps, for instance, the University of Alabama at Birmingham, the New York University College of Dentistry, the University of California at San Francisco, and many more [9-11].

In Pakistan, opportunities for dental graduates and postgraduates are dwindling [12]. Success of the private practice is solely determined by the financial outcomes and benefits that lead to dentist satisfaction. The major tasks the young dentist must complete are understanding societal needs, mastering treatment skills, communication skills, updating knowledge and new trends, patient satisfaction, clinic publicity, management of support staff, maintaining a professional network, and financial viability [13]. Limited data are available in the literature on the perception of students about dental business management as a subject in the dental curriculum.

This study aimed to identify the perception and attitude of final-year dental students and young dental graduates regarding dental business management and to find out their willingness to study this subject in dentistry. Moreover, to identify the perceived barriers and awareness regarding establishing a private dental practice,

MATERIALS AND METHODS

This questionnaire-based descriptive cross-sectional study was conducted from April 1 to September 1, 2022, with approval by the Institutional Review Board (IRB) of the Institute of Dentistry at CMH Lahore Medical College and the participating institutes. The survey was conducted using online questionnaires sent to final-year dental students, house officers, demonstrators, and postgraduate trainees in four private: CMH Medical and Dental College, Fatima Memorial Medical and Dental College, Lahore Medical and Dental College, Akhter Saeed Medical and Dental College, and two public dental colleges: de’ Montmorency College of Dentistry and Faisalabad Medical University in Pakistan. These electronic questionnaires developed using Google Forms (Google Inc.) were sent via an e-mail link, and informed consent and a statement of confidentiality were mentioned for the voluntary participants. The emails were generated via the online student portals; however, in colleges without an online student portal, the questionnaire was sent via WhatsApp to the class group. Two reminder emails and WhatsApp messages were sent three days apart to ensure and promote participation.

The authors developed the questionnaire after an extensive literature review and followed the best practice guidelines for

organizing the whole questionnaire [14]. It was later validated by face validity and content validity through the expert review of individual items by a panel of three researchers. The changes were incorporated after several revisions through pilot testing before the final draft was approved. The pilot study included 40 participants.

The questionnaire consisted of 19 closed-ended questions. The first part targeted demographics, such as age, gender, institute, designation, and year of study. The second part of the questionnaire dealt with dental students’ and graduates’ perceptions, attitudes, and willingness toward dental business management as a subject in their curriculum.

STATISTICAL ANALYSIS

Data was entered, stored, and analyzed using IBM Statistical Package for Social Sciences (SPSS version 25, IBM Corporation, USA, New York, 2011). The mean, standard deviation was calculated for quantitative variables. The Chi-Square Test was used to compare percentages of categorical variables. The P-value of ≤ 0.05 was taken as significant.

RESULTS

A total of 281 participants of various designations became a part of this research, and their demographical information is shown in Table 1.

Table 1. Demographical Information.

Demographics		n	%
Gender	Male	131	53.4
	Female	150	48.6
Institute	Private	224	79.7
	Public	57	20.3
Designation	Final Year	145	51.6
	House Officer	86	30.6
	Post Graduate Trainee	16	5.7
	Demonstrator	16	5.7
	Private Practitioner	18	6.4

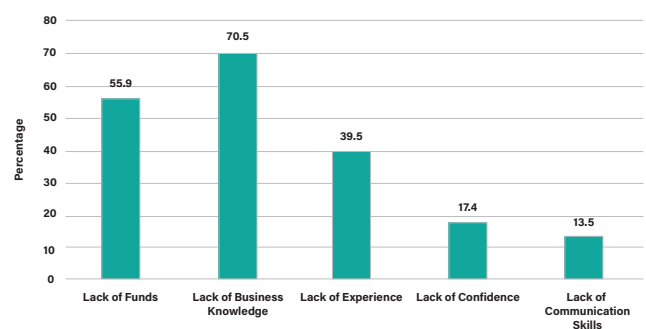


Fig. (1). Obstacles Faced in Setting Up Private Dental Practice.

The biggest obstacle newly graduated dentists face in setting up a private practice is a lack of business knowledge (n=198, 70.5%) and lack of funds (n=157, 55.9%) (Fig. 1).

Awareness of the respondents regarding opening, licensing, and marketing a new private dental practice has been elucidated in Table 2. Most respondents were slightly aware (n=141, 50.2%) of the requirements to set up and register a private dental practice or business. Most respondents were moderate to somewhat familiar with the understanding of marketing skills. The majority of majority of the respondents were unaware (n=120, 42.7%) of the licensing requirements of the healthcare establishment (HCE) or Punjab Healthcare Commission (PHC).

Table 2. Awareness about Opening a Private Dental Practice.

Statements	n	%
Awareness Regarding Requirements Needed to Set Up Your Private Dental Practice		
Not at all Aware	53	18.9
Slightly Aware	141	50.2
Somewhat Aware	41	14.6
Moderately Aware	36	12.8
Fully Aware	10	3.6
Awareness of the License Issued by HCE / PHC		
Not at all Aware	120	42.7
Slightly Aware	115	40.9
Somewhat Aware	22	7.8
Moderately Aware	9	3.2
Fully Aware	15	5.3
Awareness of the Procedure to Register Private Dental Practice/Business in Pakistan		
Not at all Aware	80	28.5
Slightly Aware	91	32.4
Somewhat Aware	86	30.6
Moderately Aware	11	3.9
Fully Aware	13	4.6
Awareness Regarding Marketing Skills for Private Dental Practice/ Business		
Not at all Aware	35	12.5
Slightly Aware	55	19.6
Somewhat Aware	79	28.1
Moderately Aware	93	33.1
Fully Aware	19	6.8

The majority of respondents (n=269, 95.7%) were not taught dental business management as a subject, and they never participated in seminars (n=187, 66.5%) or workshops (n=184, 65.5%) (Fig. 2).

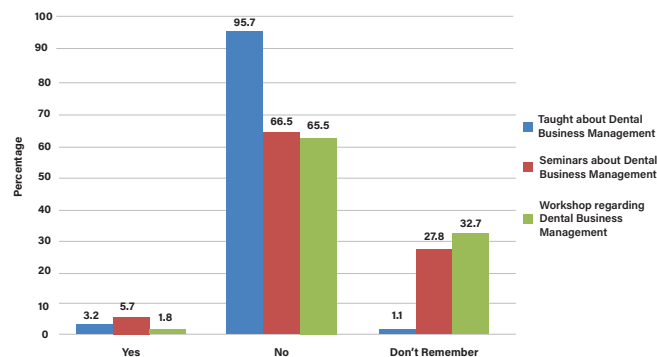


Fig. (2). Dental Business Management Lectures, Workshops, or Seminars Conducted in Dental Schools.

The majority ‘strongly agreed’ (n=105, 37.4%) and ‘agreed’ (n=120, 42.7%), respectively, that dental business management should be added to the curriculum of dentistry; they also strongly agreed (n=126, 44.8%) and agreed (n=117, 41.6%), respectively, that dental business management will assist them in establishing a successful private practice. Nonetheless, the majority of respondents (n=109, 38.8%) concurred that having basic financial management knowledge prior to starting a private practice is essential (Table 3).

Table 3. Perception of Respondents Regarding the Importance of Dental Business Management as a Subject in Dentistry.

Statements	Strongly Agree n(%)	Agree n(%)	Neutral n(%)	Disagree n(%)	Strongly Disagree n(%)
DBM should be added as a subject in the dentistry curriculum	105 (37.4)	120 (42.7)	41 (14.6)	15 (5.3)	0(0)
DBM as a subject will help establish a successful private practice	126 (44.8)	117 (41.6)	35 (12.5)	2 (0.7)	1 (0.4)
Basic financial management knowledge is imperative before starting a private practice	101 (35.9)	109 (38.8)	66 (23.5)	5 (1.8)	0(0)

Lack of funds, lack of confidence, and lack of communication skills were observed to differ significantly between private and public institutions as potential obstacles young dentists encounter when establishing a private practice (Table 4).

Table 4. Comparison of Obstacles Faced by the Respondents of Private and Public Dental Institutes.

Variables	Private n(%)	Public n(%)	X2	P-value
Lack of Funds	117(52.2)	40(70.1)	5.93	0.015
Lack of Business Knowledge	163(72.7)	35(61.4)	2.82	0.093
Lack of Experience	84(37.5)	27(47.3)	1.85	0.174
Lack of Confidence	33(14.7)	16(28)	5.61	0.018
Lack of Communication Skills	24(10.7)	14(24.5)	7.45	0.006

DISCUSSION

Operating a dental office is challenging for several reasons, including changing technology, a lack of confidence, unrealistic expectations, and shifting economic conditions. Managing a dental practice is a test of one’s entrepreneurial spirit in addition to the difficulties dentists encounter on the clinical front [15].

Thinking outside the box is the key to success, but this is rarely put into practice. The majority of dentists aspire to one day launch their private dental clinic due to expanding modernity, progress, and economic competitiveness [13, 15]. This made us wonder whether freshly graduated dentists have the necessary skills and expertise to start successful businesses. In the current survey, 78.7% of the participants expressed a favorable opinion of starting their dental practice; however, only 45.6% agreed.

Literature shows that the majority of young dentists consider a lack of business knowledge as one of the biggest challenges in starting their private practice, despite the fact that business studies are of minor importance to medical students. Previous studies have shown that nine out of ten dental students believed that having business acumen was necessary for a career in dentistry, and eight out of every ten dentists were interested in learning about business in dentistry [8, 13-15]. In a previous survey, almost 70% of dental students reported that their university should offer an MBA degree, and 63% said they would voluntarily enroll in that degree program [8, 15]. The results of the present study were consistent with the previous literature and showed the same interest of dentists to study dental business management as a subject in dentistry since dental practice is not just providing clinical skills; other factors like registration, management, payroll, taxation, advertisement, and marketing also play a major role, as illustrated in Table 3.

Another major obstacle reported in previous studies was the lack of funding. Moreover, spending and utilization of funds also play an important role [5, 8, 12]. More than half of the respondents (n=157, 55.9%) in the present study revealed a lack of funding as a primary challenge in opening a private dental practice, and a significant majority of them belonged to public institutes. Therefore, young graduates, especially from public institutes, should be educated on business and financial management, including

securing loans, learning marketing strategies, advertising, and cutting expenses.

Lack of experience is also a critical factor for young graduates when it comes to opening their own private practice. Previous literature reported that many graduates were concerned that they would not have enough clinical practice before they opened their dental practice and may have to delay or leave the private practice due to a lack of hands-on clinical experience [16, 17]. Four out of ten respondents in the present study reported a lack of experience as a hindering factor in opening their private dental practice. Refresher courses, diplomas, hands-on workshops, and seminars should be organized for young graduates to provide them with enough clinical experience and confidence to open their own dental practice.

Lack of communication skills and confidence were also some of the lesser obstacles faced in the current study. Communication skills are not an issue for most dental students in private institutions, as they are better funded, developed, and technologically advanced and have numerous activities to polish communication skills and build their students’ confidence. The results of the present study were consistent with the previous data [1, 16, 18-20].

The majority of respondents were unaware of the requirements for setting up a private practice, the process for obtaining an HCE license, the registration process for private practices, and various marketing techniques because they were never taught about them in dental school, nor were they familiarized with the terms and conditions [21, 22]. The recently graduated dentists should be familiar with these processes, as they are crucial to building a successful dental practice.

CONCLUSION

Dental students must be aware of the strategies that will help them expand their practice effectively and efficiently. Therefore, it is important that we train young dentists in a way that will teach them dentistry and business management simultaneously. Education systems must review the need for dental business management as a subject, and changes must be incorporated to develop and progress as a whole.

AUTHORS’ CONTRIBUTION

- **Hammad Hassan:** Conception and design, Drafting of article, Interpretation of data, statistical analysis.
- **Hiba Mukhtar:** Conception and design, Collection of data, Drafting of article, Interpretation of data.
- **Salman Aziz:** Drafting of article, Critical revision.
- **Haseeb Mukhtar:** Collection of data, Drafting of article.
- **Taha Tarin:** Collection of data, Interpretation of data.
- **Asma Shakoor:** Collection of data, Critical revision.

CONFLICT OF INTEREST

Declared none.

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