



# Dental Students' Awareness and Perception of Family Dentistry Specialty: Exploring the Rationale for Its Integration into the Undergraduate Curriculum

Abimbola Olubunmi Balogun<sup>1\*#</sup>, Akindayo Olufunto Akinyamoju<sup>2</sup>,  
Juliana Obontu Taiwo<sup>1</sup>, Clara Arianta Akinyamoju<sup>1</sup>

<sup>1</sup>Family Dentistry Department, University College Hospital, Ibadan, Nigeria

<sup>2</sup>Department of Oral Pathology, University of Ibadan, Ibadan, Nigeria

Email: \*josbalo510@gmail.com

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## Abstract

In recent decades, there has been a paradigm shift in the approach to medical and dental education, placing greater emphasis on training undergraduate students in community-based primary care settings. Notably, in Europe and America, the general medical council's reports in 1993 and 2002 respectively recommended that a substantial portion of undergraduate training be conducted in general practice. This reflects the evolving healthcare landscape and promotes exposure to diverse healthcare environments such as hospitals, general practices, and community medical services. However, undergraduate training in the general dental practice (family dentistry) is virtually non-existent in Nigeria. This study therefore, set out to assess dental students' awareness and perception of the family dentistry specialty. A cross-sectional study was conducted at the Faculty of Dentistry, University of Ibadan, Nigeria. All (30) final year dental students were recruited for the study. The participants consisted of consenting final-year dental students aged 21 years and above. Data on sociodemographics, knowledge, and perception of the scope of family dentistry were obtained using a structured self-administered questionnaire. Descriptive statistics were used for data analysis with a level of significance at  $p \leq 0.05$ . The Result revealed that participants were predominantly aged 21 to 30 years, with a mean age of  $25 \pm 2$  years. Majority (63.3%) were males. Less than a quarter (23.4%) had good knowledge of scope of family dentistry with 76.6% scoring less than 4.0 (the cut off score for good knowledge using Likert scale). Approximately half of the subjects (51%) expressed the belief that family

\*#First and corresponding author.

dentistry should be integrated into their training. However, only 10% indicated a desire to pursue family dentistry after completing their undergraduate degree. Statistical analysis revealed no significant relationship between knowledge of the specialty and the desire to choose it ( $p = 0.34$ ). This shows that there is poor perception and knowledge of the family dentistry specialty among dental students in Ibadan.

## Subject Areas

Dentistry

## Keywords

Family Dentistry Specialty, Community-Based Primary Care Settings, Dental Students

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## 1. Background

Family dentistry, also referred to as general dental practice, is a specialized field of dentistry that provides comprehensive oral healthcare to people of all ages, including the elderly, adults, adolescents and children. It offers a broad range of services to patients across different life stages [1]. As the primary caregivers for families, the specialty plays a crucial role in promoting oral health, preventing diseases and addressing the unique needs of each family member [2]. This specialty also provides effective oral health care to underserved populations where specialized healthcare may not be easily accessible [2].

Furthermore, in recent decades, there has been a paradigm shift in the approach to medical and dental education, placing greater emphasis on training undergraduate students in community-based primary care settings [3].

In Europe and America, the general medical council's reports in 1993 and 2002 respectively recommended that a substantial portion of undergraduate training be conducted in general practice, reflecting the evolving healthcare landscape and promoting exposure to diverse healthcare environments such as hospitals, general practices, and community medical services [4].

Currently, due to the exclusion of family dentistry training from the undergraduate curriculum, the undergraduate dental student lacks basic training in family dynamics including family centered care. There is also insufficient understanding of dental practice management, which is a key component of family dentistry training [5]. Dental practice management provides basic training for entrepreneurs in Dentistry. Moreover, a deficient training in family dentistry could lead to the inability of the dental graduate to provide comprehensive dental care for families [6].

The educational advantages for undergraduate training in family dentistry are enormous. It introduces the students to various fields of family dentistry, which include Palliative care, Geriatric care, Health communication skills, Dental office

management and Sports dentistry [7] [8].

Family dentistry provides oral health care at the secondary level with many of the clinics situated outside the teaching hospitals and mainly in the communities [5].

This specialty is suitable for the promotion of dental education, which has more relevance to the health needs of the community [6].

However, despite these numerous advantages of the specialty, it is totally non-existent in the undergraduate curriculum for dental students in Nigeria and many dental students know nothing about this specialty.

This study therefore set out to describe the awareness and perception of dental students about the scope of family dentistry specialty.

## 2. Materials and Methods

This cross-sectional study was conducted at the Faculty of Dentistry, University of Ibadan, Nigeria. All willing final year dental students were recruited for the study. A total of 30 students out of 35 final-year dental students consented to participate. They were aged 21 years and above.

Data were obtained using a structured self-administered questionnaire which consisted of four sections namely Section A (demographics), Section B (awareness of family dentistry specialty), Section C (perception of family dentistry specialty) and Section D (willingness to pursue family dentistry as a career). Using a Likert scale of 1 to 5, awareness of the participants was assessed and the cut off scores were set as follows: Scores greater than 4 for good, score of 3 for average and less than 3 for poor awareness.

The questionnaire was pre-tested among five dental students (15% of the sample size) who were not included in the study. Ambiguous plus misleading questions were excluded and the validity of the questionnaire was tested using Cronbach's Alpha. A score 0.8 was derived. (See Appendix)

Data were presented using summary statistics such as frequency tables, charts, mean and standard deviation. Chi square test was used to test association between categorical variables with level of significance set at  $p < 0.05$ .

## 3. Result

The study involved a total of 30 participants, aged 21 to 30 years, with a mean age of  $25 \pm 2$  years. Majority (63.3%) were males. Less than a quarter (23.4%) had good awareness of family dentistry with 76.6% scoring less than the mean score of 4.0. Approximately half of the subjects (51%) expressed the belief that family dentistry should be integrated into their training. However, only 10% indicated a desire to pursue family dentistry after completing their undergraduate degree. (See **Table 1** and **Table 2**)

There was no statistically significant association between awareness of family dentistry specialty and the desire to choose it ( $X = 0.62$ ,  $P = 0.38$ ). (Chi squared is justified since the expected cell counts were greater than 5) (See **Figures 1-4**).

**Table 1.** Socio-demographic characteristics of respondents.

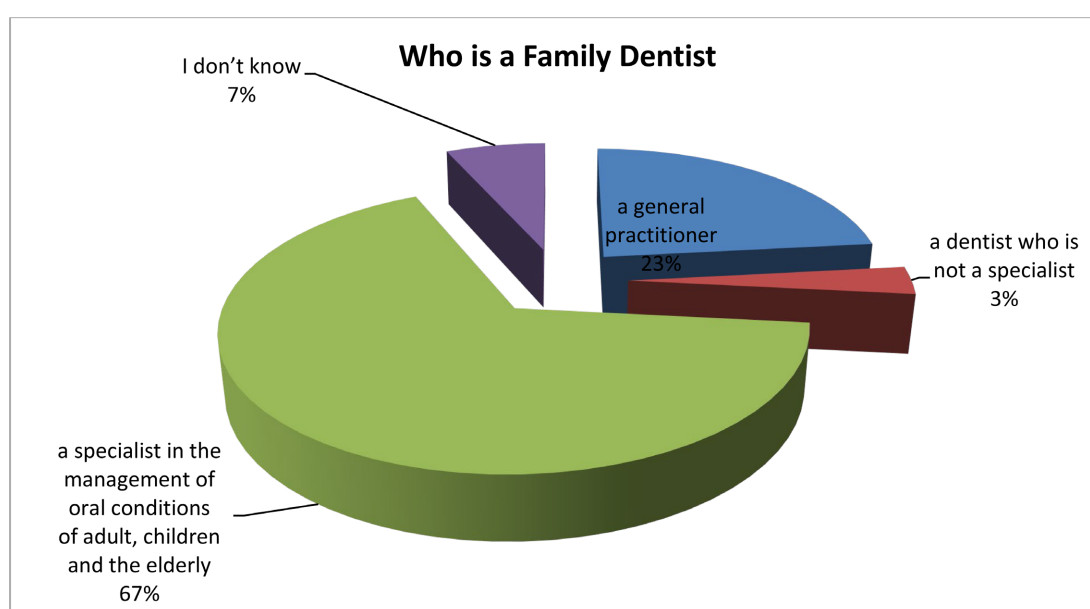
Participants Demographic Data		Frequency	Percentage
Age	19 - 21 years	2	6.7
	22 - 24 years	5	16.7
	25 - 27 years	19	63.3
	28 - 30 years	4	13.3
Marital Status	Single	29	96.7
	Married	1	0.3
Gender	Male	19	63.3
	Female	11	36.7
Religion	Christianity	20	66.7
	Islam	9	30.0
	Not Religious	1	3.3

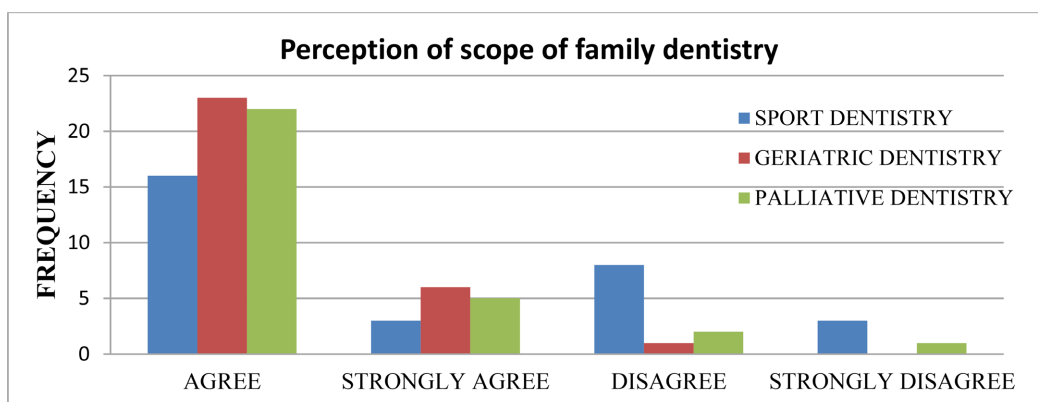
(Majority were males, single, young adults and Christians)

**Table 2.** Distribution of respondents according to their level of awareness of family dentistry specialty.

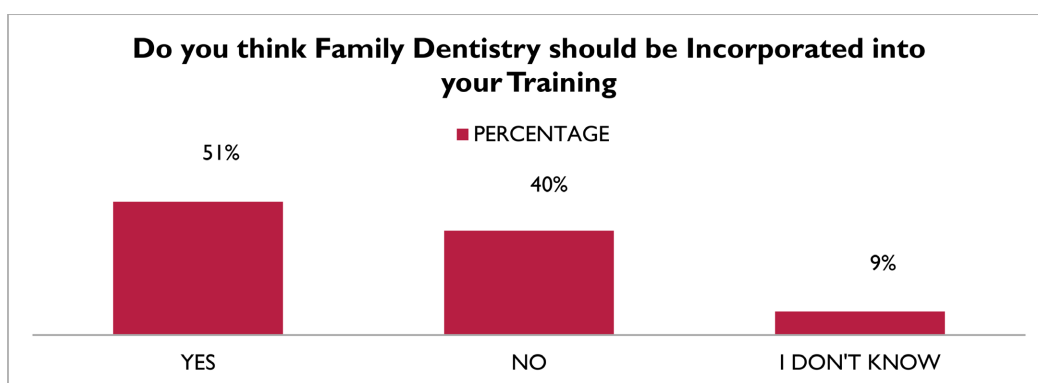
Level of awareness	Scores (Likert scale)	Percentage (%)
Good awareness	5	10.1
	4	13.3
Average awareness	3	0.0
Poor awareness	2	43.3
	1	33.3

(The level of awareness of the specialty was low).

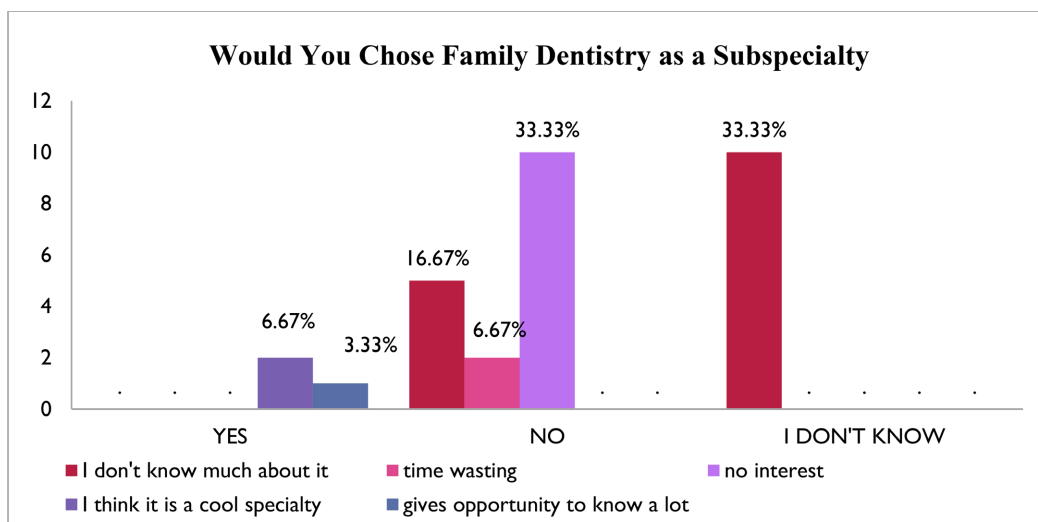
**Figure 1.** Distribution of respondents according to their knowledge of who a family dentist is (A good percentage were able to define the family dentistry specialty).



**Figure 2.** Distribution of respondents according to their perception of the scope of family dentistry (Many have a good perception of the scope of family dentistry).



**Figure 3.** Incorporation of family dentistry into undergraduate training (Majority were in support of family dentistry being integrated into their training).



**Figure 4.** Distribution of respondents according to their willingness to choose family dentistry as a subspecialty (Majority were not willing to choose family dentistry as a subspecialty).

### 4. Discussion

Improved education and exposure to family dentistry within undergraduate dental

programs are very crucial [7]. Understanding and addressing the factors influencing students' career decisions can help promote family dentistry as a viable and rewarding career option. As expected, majority of the participants in this study were young adults aged 25 - 27 years. This is also in tandem with a previous study by Blinkhorn *et al.*, 2002 [8]

The results of this research revealed the understanding and perspectives of dental students with respect to considering family dentistry as a possible career path [8]. The relatively low awareness of family dentistry shown by the respondents highlights the requirement for improved educational endeavors in this specific area [7] [8]. Thus the lack of exposure to family dentistry during their undergraduate dental education is a potential gap in the curriculum. Addressing this gap through targeted educational interventions might help students to make informed decisions about their future careers.

The discrepancy between the percentages of students who believe family dentistry should be integrated into their training (51%) and those who wish to pursue it as a career (10%) is noteworthy.

It suggests that while students acknowledge the importance of family dentistry within the dental profession, they may not view it as an attractive long-term career path. This could be due to various factors, including misconceptions about the scope and potential of family dentistry as well as limited exposure to successful role models in the field.

The relevance of the family dentistry specialty is closely tied to ensuring that dental professionals are prepared not only for clinical procedures but also for broader aspects of care that affect entire families [9] [10]. Family dentistry emphasizes preventive care, long-term relationships with patients of all ages, and the ability to address diverse oral health needs [11] [12].

Ali *et al.* 2017, highlighted a gap in the perceived preparedness of dental graduates, particularly in non-clinical skills like using evidence-based practices, professional development, and addressing ethical concerns about colleagues [13]. This suggests that while clinical competencies in undergraduate training in dentistry may be strong, there is a need for curricula to focus more on holistic skills such as professional responsibility, lifelong learning, and communication with colleagues. These are potential areas where family dentistry training can be beneficial.

Educators in family dentistry ensure that their students are "safe beginners" who can not only perform procedures but also think critically about the latest research, develop ethical standards, and continuously improve their skills to meet the evolving needs of patients across all age groups [14].

Therefore, strengthening family dentistry as a discipline within the dental curriculum and providing more clinical exposure could foster greater interest and understanding among students.

Additionally, mentorship programs, seminars, and interactions with practicing family dentists might offer valuable insights and dispel any misconceptions about

the profession [15].

The present study was a single-center study with a 30 student sample population which is relatively small. Also, the similar demographics characteristics of the participants might limit the generalizability of the findings. Future research with larger and more diverse samples would be beneficial in gaining a more comprehensive understanding of the factors influencing career decisions among dental students.

## 5. Conclusion

The study shows that there is low perception and knowledge of family dentistry specialty among the students. Therefore, strengthening family dentistry as a discipline within the dental curriculum and providing more clinical exposure. could foster greater interest and understanding among students. It is important for policy makers and dental educators to collaborate towards creating an inclusive and informative learning environment that nurtures students' interest in family dentistry and fosters a new generation of skilled and motivated family dentists.

## Conflicts of Interest

The authors declare no conflicts of interest.

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## Appendix: Questionnaire

### Dental Students' Awareness and Perception of Family Dentistry Specialty

#### Exploring the Rationale for Its Integration into the Undergraduate Curriculum

Thank you for taking part in this study. Your honest answers will help evaluate awareness and attitudes toward Family Dentistry and whether it should be integrated into the undergraduate curriculum. Please answer all questions. There are no right or wrong answers. Your responses will remain anonymous and confidential.

Estimated time to complete: 2 - 5 minutes

#### Informed Consent

1. I have read the information about the study and understand what participation involves. [  ] Yes [  ] No
2. I understand that my participation is voluntary and I can withdraw at any time without any consequence.  
[  ] Yes [  ] No
3. I consent to the use of anonymized data from this questionnaire for research and publication. [  ] Yes [  ] No

Serial no.....

#### Section A. Socio-Demographic and Academic Information

1. Age: \_\_\_\_\_ years
2. Sex: [  ] Male [  ] Female [  ] Prefer not to say
3. Have you completed a posting/rotation in Family Dentistry? [  ] Yes [  ] No [  ] Not sure
4. How many weeks of clinical exposure to family-oriented dental care have you had?  
[  ] None [  ] 1 - 2 weeks [  ] 3 - 4 weeks [  ] >4 weeks

#### Section B. Awareness & Knowledge about Family Dentistry (5-point Likert scale)

1. Family Dentistry focuses on oral healthcare needs of the entire family across all ages.  
1 = Strongly Disagree [  ], 2 = Disagree [  ], 3 = Neutral [  ], 4 = Agree [  ], 5 = Strongly Agree [  ]
2. Family Dentists manage complex restorative and preventive care for medically compromised patients.  
1 = Strongly Disagree [  ], 2 = Disagree [  ], 3 = Neutral [  ], 4 = Agree [  ], 5 = Strongly Agree [  ]
3. Family Dentistry is the same as Community Dentistry / Public Health Dentistry.  
1 = Strongly Disagree [  ], 2 = Disagree [  ], 3 = Neutral [  ], 4 = Agree [  ], 5 = Strongly Agree [  ]
4. Family Dentistry includes the coordination of care with medical practitioners.  
1 = Strongly Disagree [  ], 2 = Disagree [  ], 3 = Neutral [  ], 4 = Agree [  ], 5 = Strongly Agree [  ]
5. Family Dentistry places emphasis on continuity of care across life stages.  
1 = Strongly Disagree [  ], 2 = Disagree [  ], 3 = Neutral [  ], 4 = Agree [  ], 5 = Strongly Agree [  ]
6. Family Dentistry is recognized as a postgraduate specialty in many countries.  
1 = Strongly Disagree [  ], 2 = Disagree [  ], 3 = Neutral [  ], 4 = Agree [  ], 5 = Strongly Agree [  ]

#### SECTION C: Perception & Attitude (5-point Likert scale)

1. Family Dentistry should be a distinct specialty taught in the undergraduate curriculum.  
1 = Strongly Disagree [  ], 2 = Disagree [  ], 3 = Neutral [  ], 4 = Agree [  ], 5 = Strongly Agree [  ]
2. Integrating Family Dentistry into the undergraduate curriculum will improve my ability to manage diverse patient needs.  
1 = Strongly Disagree [  ], 2 = Disagree [  ], 3 = Neutral [  ], 4 = Agree [  ], 5 = Strongly Agree [  ]
3. Undergraduate students need more training in comprehensive care across life stages.  
1 = Strongly Disagree [  ], 2 = Disagree [  ], 3 = Neutral [  ], 4 = Agree [  ], 5 = Strongly Agree [  ]

4. Family Dentistry reduces the need for unnecessary specialist referrals.

1 = Strongly Disagree [    ], 2 = Disagree [    ], 3 = Neutral [    ], 4 = Agree [    ], 5 = Strongly Agree [    ]

5. I would consider a career in Family Dentistry if postgraduate training were available locally.

1 = Strongly Disagree [    ], 2 = Disagree [    ], 3 = Neutral [    ], 4 = Agree [    ], 5 = Strongly Agree [    ]

6. The current undergraduate curriculum does not address family-oriented dental care.

1 = Strongly Disagree [    ], 2 = Disagree [    ], 3 = Neutral [    ], 4 = Agree [    ], 5 = Strongly Agree [    ]

7. Exposure to Family Dentistry during undergraduate training increases confidence in treating medically complex patients.

1 = Strongly Disagree [    ], 2 = Disagree [    ], 3 = Neutral [    ], 4 = Agree [    ], 5 = Strongly Agree [    ]

**Section D: Willingness & Career Interest**

1. After graduation, would you be willing to provide family-oriented dental care in general practice?

[    ] Yes [    ] No [    ] Maybe

2. Would you be interested in postgraduate training in Family Dentistry if available?

[    ] Yes [    ] No [    ] Maybe

3. If 'No' to Q2, state reasons: \_\_\_\_\_