

# Choosing to Specialise in Stomatology and Maxillofacial Surgery in Togo: Perception and Evaluation of Motivation among Final-Year Students in the Health Science Faculties

Saliou Adam<sup>1\*</sup>, Amady Coulibaly<sup>2</sup>, Mawaba Komlan Mawabah Bouassalo<sup>1</sup>,  
Olivia Séfako Agbéssimé<sup>1</sup>, Foma Winga<sup>3</sup>, Haréfétégouena Bissa<sup>4</sup>,  
Hamza Doles Sama<sup>4</sup>, Bathokédéo Amana<sup>3</sup>, Essohanam Boko<sup>4</sup>

<sup>1</sup>Department of Stomatology and Maxillofacial Surgery, Sylvanus Olympio University Teaching Hospital, Lomé, Togo

<sup>2</sup>Department of Stomatology and Maxillofacial Surgery, CHU-CNOS Pr Hamady Traore, Bamako, Mali

<sup>3</sup>Department of ENT, Head and Neck Surgery, Sylvanus Olympio University Teaching Hospital, Lomé, Togo

<sup>4</sup>Faculty of Health Sciences, University of Lomé, Lomé, Togo

Email: \*saliou.adam1@yahoo.com

**How to cite this paper:** Adam, S., Coulibaly, A., Bouassalo, M.K.M., Agbéssimé, O.S., Winga, F., Bissa, H., Sama, H.D., Amana, B. and Boko, E. (2025) Choosing to Specialise in Stomatology and Maxillofacial Surgery in Togo: Perception and Evaluation of Motivation among Final-Year Students in the Health Science Faculties. *Open Journal of Stomatology*, 15, 259-270.  
<https://doi.org/10.4236/ojst.2025.1510024>

**Received:** August 27, 2025

**Accepted:** September 25, 2025

**Published:** September 28, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

**Introduction:** We conducted this study to evaluate the perception and motivation of students in their choice of specialization in Stomatology and Maxillofacial Surgery at the end of their medical cycle in the health sciences faculties of the public universities of Lomé and Kara. **Framework and Method:** This was a cross-sectional, descriptive study with prospective data collection on the perception and evaluation of the motivation of final-year students in their choice of specialization in Stomatology and Maxillofacial Surgery. This study was conducted from January to March 2024 in the Faculties of Health Sciences of the Universities of Lomé and Kara (TOGO). It included doctoral students in medicine. The parameters studied were: Socio-demographic aspects; personal or family history of intervention in the maxillofacial surgery department (MFS); elements of the perception of MFS by the students; and criteria motivating the choice or not of Stomatology and MFS. **Results:** Two hundred students were included, representing a participation rate of 46.18%. The average age of the students was 25.40 years, with extremes of 21 and 37 years. Seventy-five percent of the forms were male, giving a sex ratio of 3. Twenty-nine point nine percent of the students opted for Stomatology and Maxillofacial Surgery as their future specialization. The choice of surgery was not related to gender or age, but rather to professional status and level of education. Sixty-four point four percent of those who had opted for this specialization were in their sixth

year, with a p-value of 0.001. Thirty-one civilian students opted for the specialization in Stomatology and MFS, with a p-value of 0.311; and 28 military students, with a p-value of 0.004. The main motivation was high income and prestige among colleagues. Unavailability of training and the stress of the specialty were the main discouraging factors. **Conclusion:** This study revealed considerable interest among medical students in specializing in maxillofacial surgery and stomatology. Suggestions should be considered with a view to increasing the number of maxillofacial surgeons in Togo.

## Keywords

Motivation, Specialization, Maxillofacial Surgery, Stomatology, Togo

---

## 1. Introduction

Stomatology and Maxillofacial Surgery (MFS) constitute a single specialty, a surgical specialty that addresses pathologies of the jaws and other facial bones, pathologies of the soft tissues of the face, and those of the oral cavity. Stomatology comes from the Greek words “stomein,” meaning “mouth,” and “logos,” meaning “science.” It is thus defined as a branch of medicine dedicated to the study of diseases of the oral cavity and their treatment. It is an old discipline, which has existed since 1868 [1]. Stomatology and MFS is one of the surgical specialties in postgraduate training programs. With a very long history of practice, Stomatology and MFS experienced a boom, especially during armed conflicts, particularly the Great War (1914-1918), when the need to repair “broken jaws” revolutionized this specialty [2]. Knowledge of Stomatology and MFS is valued differently around the world. Thus, studies conducted by Herlin *et al.* in the United States in 1996 [3], on their perception and recognition of its fields of action by the public and healthcare professionals, reported that all physicians had already heard of Stomatology and MFS. However, in developing countries, especially in Africa, Stomatology and MFS still appear to be little or not at all known by the population [4]. A study conducted in Nigeria confirmed this by showing that only 5.4% of the population had ever heard of it [5].

In Togo, Stomatology and MFS is a recent specialty; until 2012, dental surgeons taught this teaching unit in universities and schools. At that time, there was a lack of familiarity with this specialty, and its scope was unknown to most medical students. This was still observable in our University Hospitals, which until then did not have a proper Stomatology and MFS department. There are currently 3 Stomatologists and maxillofacial surgeons for more than seven million inhabitants in Togo. While the WHO recommends 1 doctor per 10,000 inhabitants, all specialties combined, Togo had only 0.80 doctors per 10,000 inhabitants in 2022 compared to 12.20 on average in the world. In Burkina Faso, this ratio is 787 doctors per 16 million inhabitants [6]. The question then arose as to what factors motivate students’ choice of specialization in Stomatology and MFS at the end of medical

training. Given the number of specialists in Stomatology and MFS being related to the career choices of medical students, it was important for us to determine their perception of specialization in Stomatology and Maxillofacial Surgery. This is the aim of the present study, whose general objective was to assess the perception and motivation among students at the end of the medical cycle in the Faculties of Health Sciences of the universities of Lomé and Kara in the choice of specialization in Stomatology and Maxillofacial Surgery. This is in order to propose strategies to encourage more students to move towards Stomatology and MFS in Togo.

## 2. Materials and Methods

**Type of Study.** Our study was conducted in the Faculties of Health Sciences (FHS) of the Universities of Lomé and Kara. This was a cross-sectional and descriptive study with prospective data collection focused on the perception and assessment of motivation in choosing Stomatology and MFS as their future specialization. The study period covered from January 5<sup>th</sup>, 2024, to March 5<sup>th</sup>, 2024, a period of 3 months. Our target population was final-year medical students at the Universities of Lomé and Kara.

**Inclusion Criteria.** Our study included students regularly enrolled at the end of their cycle in the Faculties of Health Sciences of the Universities of Lomé and Kara, doctoral track, specializing in medicine, and who had given their consent to participate in the study.

**Exclusion Criteria/Non-inclusion Criteria.** We excluded students who were not regularly enrolled and those who did not correctly complete the questionnaires. We did not include students in odontostomatology and pharmacy, or students in undergraduate and graduate programs.

**Parameters Studied.** The parameters studied were:

- Sociodemographic data (gender, age, level of medical education, university of origin, nationality, marital status, number of children, level of education, and parents' profession).
- Personal or family history of MFS intervention.
- Elements of the students' perceptions of MFS.
- Criteria motivating the choice or non-choice of Stomatology and MFS.

Each item was rated from 1 (extremely important) to 5 (not at all important) according to the Rensis Likert scale [7].

**Data Collection and Processing.** Data were collected using a self-administered questionnaire deployed online via Google Forms. The resulting database was refined and analyzed using R software version 4.1.3 (2022-03-10) in the R Studio 2022.02.1 development environment. Data processing was performed using Microsoft Word and Excel 2013. The statistical test used was the chi-square with a significance threshold of 5%. Students received prior instructions on how to correctly complete the forms. Other alternative methods were used, including telephone interviews.

**Ethical Considerations.** We obtained approval from the Ethics Committee of the Faculty of Health Sciences at the University of Lomé. Participation in this study was voluntary and anonymous. Confidentiality was maintained for each student. The information provided and the data were processed anonymously. Written and signed informed consent was obtained prior to participation in the study.

### 3. Results

Out of a total of 463 regularly enrolled students, 380 gave their consent to participate in the study, and 200 records were retained, including 157 in Lomé and 43 in Kara.

#### 3.1. Sociodemographic Data

**Age.** The average age of the students was 25.4 years, with a range of 21 to 37 years. The standard deviation was 1.4 years (**Figure 1**).

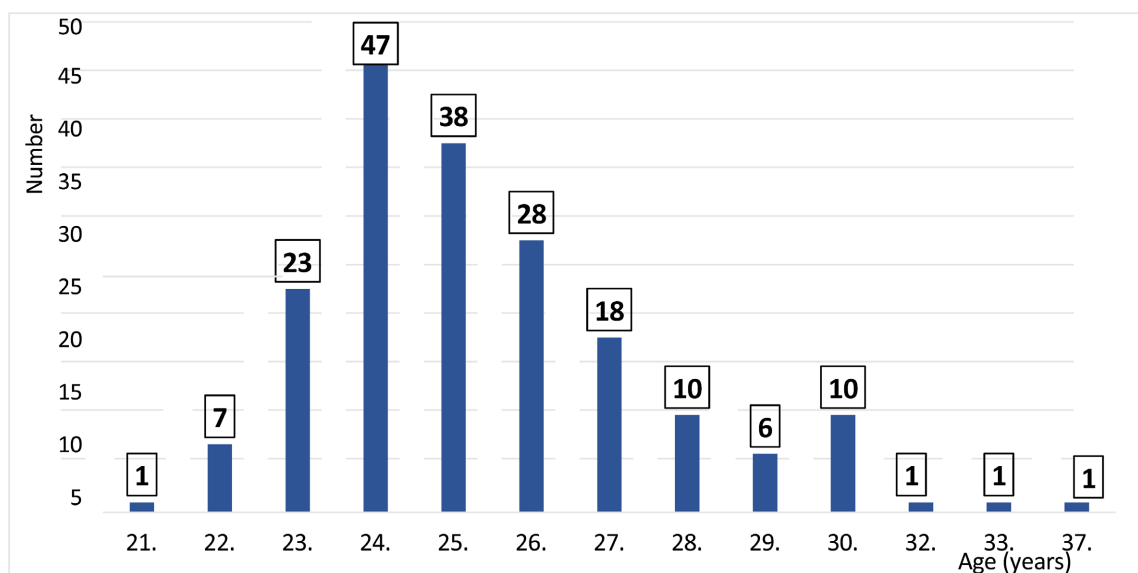
**Sex.** One hundred and fifty students were male (75%), with a sex ratio of 3.

**Nationality.** 88.5% of the students were Togolese. Other nationalities accounted for the remainder of the sample, with Beninese nationality representing 4%.

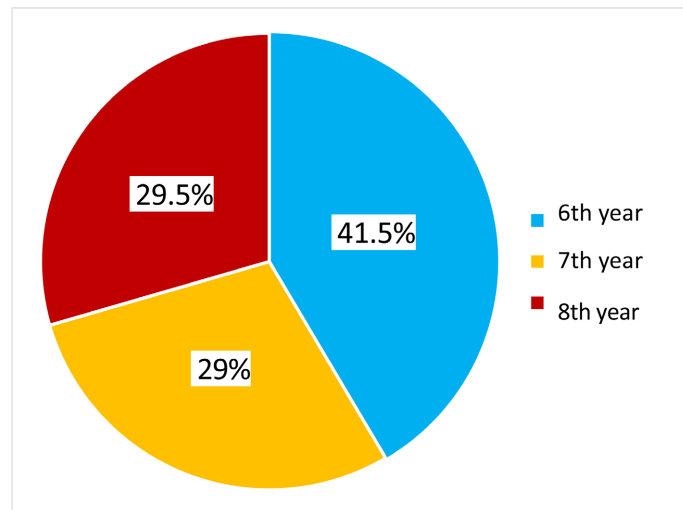
**University of Origin.** Students from the University of Lomé represented 82% of the sample.

**Students' Level of Medical Education.** The survey involved students enrolled in the sixth, seventh, and fourth years of medical school at the Universities of Lomé and Kara. The participation rate for the sixth year was 41.5% (**Figure 2**).

**Parental occupation.** Regarding the occupation of the parents, we found 30 who worked in the health field, representing 16.4%, including 5 general practitioners (2.5%) and 4 surgeons (2%).



**Figure 1.** Distribution of students by age.



**Figure 2.** Distribution of students according to level of study.

### 3.2. Students' Personal or Family History of Treatment in Stomatology and Maxillofacial Surgery

Among the students, 20 (10%) had a personal or family history of treatment in stomatology and maxillofacial surgery.

### 3.3. Perception of Stomatology and Maxillofacial Surgery

Stomatology and Maxillofacial Surgery was perceived as a surgical specialty in 59% of cases. Compared to other “sister” specialties, 147 students (73.5%) recognized that Stomatology and Maxillofacial Surgery was a specialty different from Otolaryngology (ENT) and Head and Neck Surgery (HNS), 85% recognized it as different from dental surgery, 87.5% as different from plastic surgery, and 90.5% as different from cosmetic surgery.

### 3.4. Scope of Practice of Stomatology and MFS

According to the students surveyed, the scope of practice of Stomatology and Maxillofacial Surgery primarily covered maxillofacial trauma in 98% of cases, maxillofacial malformations in 90% of cases, and cervicofacial cellulitis in 69% of cases.

Thirty-three (16.5%) and 19 (9.5%) students, respectively, found dental caries and sinusitis to be within the scope of practice of Stomatology and MFS.

### 3.5. Sources of Information for Students on Stomatology and MFS

Basic training was the source of information for 84.5% of students.

### 3.6. Assessment of Motivation for Specializing in Stomatology and Maxillofacial Surgery

In 29.5% of cases, students answered yes to the question of whether they would choose Stomatology and Maxillofacial Surgery as their future specialty.

#### **- Motivating Factors**

High income, prestige among colleagues, and the opportunity to pursue an academic career were the motivating factors in 59% (n = 200) of cases.

Appreciation of the internship in Stomatology and Maxillofacial Surgery. Of the 200 students, 77.5% (n = 155) had completed an internship in Stomatology and Maxillofacial Surgery, and 120 of them (70.5%) had a very positive impression of this internship.

Of the 200 students, the influence of training and high income potential were the main factors in 58% of cases.

#### **- Demotivating factors**

The reduced practical training environment and unavailability of training (87.5% of cases).

Insufficient class hours (75.5% of cases).

Stress (75% of cases).

Low earning potential in 72.5% of cases.

Lack of practical dissection work: 172 students, or 86%, felt that practical dissection work and increased class hours would further motivate them to specialize in Stomatology and Maxillofacial Surgery.

Other specialties: Students who did not choose Stomatology and Maxillofacial Surgery primarily chose gynecology in 11.4% of cases; cardiology, traumatology, and medical imaging in 8.6%, 7.1%, and 7.1% of cases, respectively.

### **3.7. Correlation Study**

#### **3.7.1. Choice of Specialization and Age**

The mean age of students who chose Stomatology and Maxillofacial Surgery as their specialty was  $24.3 \pm 1.1$  years, with a p-value of 0.102.

#### **3.7.2. Choice of Specialization and Gender**

Fifty-one male students opted for the specialization in Stomatology and MFS, with a p-value of 0.1021.

Eight female students opted for the specialization in Stomatology and MFS, with a p-value of 0.314.

#### **3.7.3. Choice of Specialization and Civilian/Military Student Status**

Thirty-one civilian students opted for the specialization in Stomatology and MFS, with a p-value of 0.311; and 28 military students, with a p-value of 0.004.

#### **3.7.4. Choice of Specialization and Level of Medical Education**

Sixty-four point four percent of those who had opted for this specialization were in their sixth year, with a p-value of 0.001 (**Table 1**).

## **4. Discussion**

### **4.1. Rationale for the Study, Limitations, and Challenges Encountered**

#### **4.1.1. Rationale for the Study**

This is the first study of its kind in Togo. Our study highlighted medical students'

**Table 1.** Correlation between choice of specialization and level of study.

	Choice			p-value
	Yes n (%)	No n (%)	Total n (%)	
8 <sup>th</sup> year	15 (7.5)	44 (22)	59 (29.5)	1.18
7 <sup>th</sup> year	6 (3)	52 (26)	58 (29)	1.24
6 <sup>th</sup> year	38 (19)	45 (22.5)	83 (41.5)	0.001
<b>Total</b>	<b>59 (29.5)</b>	<b>141 (70.5)</b>	<b>200 (100)</b>	

P-value  $\leq 0.05$  = existence of a statistically significant relationship. P-value  $> 0.05$  = non-existence of a statistically significant relationship.

perceptions of Stomatology and Maxillofacial Surgery, on the one hand, and identified the factors that discourage these students from choosing this specialization, on the other. Since these factors are not immutable, this study could help develop a strategy to encourage many more students to choose this specialty in Togo.

#### 4.1.2. Limitations

Our study had some limitations.

Data collection was conducted using a “Google Form” format completed online by students, on the one hand, and survey forms completed instantly by students and then collected, on the other. This may have constituted a bias in our study, including selection bias from online forms vs. in-person surveys. Furthermore, the absence of students at the University of Kara, linked to temporary holidays, also contributed to reducing our study sample. However, given that the forms were completed anonymously, the number of students was large, and the responses were honest and free, we believe the risk of bias was reduced.

This survey was actually a study of intentions regarding specialty choice and provides only an indication, not a guarantee, regarding students’ future choices. Some students may undertake relocation trips after their doctorate, which could change their career direction.

This was a cross-sectional and descriptive study with prospective data collection that must take into account changes over time.

The absence of a Stomatology and MFS department in Kara hospitals constitutes another bias.

#### 4.1.3. Difficulties Encountered

The data collection period coincided with the sixth-year students’ vacations. It was therefore necessary to develop a “Google Form”-type data collection format in order to extend the sample to sixth-year students at the University of Kara. This absence of students attending classes at the University of Kara limited the sample size.

The partial, incorrect, or illegible completion of some survey forms rendered them unusable for the study.

The lack of consent from some students also affected the sample size.

## 4.2. Methodology

Our sample included only doctoral students. Other authors have also surveyed only externs in their final year of study and found that the likelihood of subsequently changing majors is lower in this group of students [8].

In our study, data collection was conducted using a self-administered questionnaire and an online questionnaire, with explanations for completing the forms. Other alternative methods exist, including telephone interviews, but these are subject to numerous biases.

## 4.3. Results

### 4.3.1. Participation Rate

The student participation rate was 52.63% in our study. These results are similar to those of William *et al.* [9] in the United States, who recorded a participation rate of 55%. However, they are lower than those of Boyle *et al.* in Ireland and Harris and Jeffrey in the United Kingdom, who reported 66.4% and 77%, respectively [10] [11].

### 4.3.2. Demographic Data

#### Age and Sex

The mean age of students in our series was 25.4 years. These results are consistent with those of Rogers and Ekenze, who reported a mean age of 25.7 years and 27.7 years, respectively [12] [8] in Nigeria. This could be explained by the fact that the study population consisted mainly of medical interns. Seventy-five percent of the students surveyed were male, with a sex ratio of 3. These results are similar to those of Ekenze and Williams, who noted that 65.1% and 71% of the respondents were male, respectively. This clear male predominance could be explained by difficulties in accessing education for girls in developing countries and a more difficult path in scientific programs [13]. Girls are underrepresented in medical schools because few obtain a scientific baccalaureate [14]. In contrast, el Abdili in Ireland and Lefèvre *et al.* in France reported rates of 62.5% and 62% of female students, respectively [15] [16]. This difference could be explained by the higher proportion of women enrolled in medical school, thanks to the feminization of the medical field in developed countries.

### 4.3.3. Perception of Specialization in Stomatology and Maxillofacial Surgery

Almost all respondents reported being familiar with Stomatology and Maxillofacial Surgery. Among them, 118 students (59%) perceived Stomatology and Maxillofacial Surgery as a surgical specialty. This could be explained by the predominance of surgical procedures in this specialty [2].

Basic training was the best source of information for the students surveyed in 84.5% of cases. This may be explained by the fact that Stomatology and Maxillofacial Surgery are part of the teaching curriculum in medical studies in Togo.

Regarding the fields of action of Stomatology and Maxillofacial Surgery, according to the students, they mainly covered maxillofacial trauma (98%) and maxillofacial malformations (90%), which is a true statement because Stomatology and Maxillofacial Surgery is par excellence the specialty of “broken faces” [2] [5]. These results are similar to those of Herlin in France and Nagadopal in India [16] [17]. Thirty-three, 19, and 20 students, respectively, found that dental caries, sinusitis, and otitis were included in the scope of Stomatology and MFS, as well as cervicofacial cellulitis in 69% of cases. This could be explained by the true existential crisis facing Stomatology and MFS in Togo, due to a lack of awareness of its content, the recent introduction of this specialty, and the lack of teachers in this field. Kamal in 2018 in Ireland and Hamid in 2020 in London reported the same results and suggested increasing awareness among healthcare professionals and the public about the scope of Stomatology and MFS [18] [19].

#### **4.3.4. Factors Related to the Choice of Specialization in Stomatology and Maxillofacial Surgery**

Fifty-nine students (29.5%) expressed a desire to specialize in Stomatology and Maxillofacial Surgery. Students who did not choose Stomatology and Maxillofacial Surgery primarily chose gynecology (11.4%) and cardiology (8.6%). These results mirror those of Géraldo in Togo in 2020, with a proportion of 9.9% for cardiology, Choukaire in Lebanon in 2007, and N’cho-mottoh in Côte d’Ivoire in 2021, with 17.9% for gynecology and 15.6% for cardiology, respectively [20]-[22].

The factors underlying the lack of interest in Stomatology and Maxillofacial Surgery were also analyzed. In our study, the reasons cited for rejecting the choice of specializing in Stomatology and Maxillofacial Surgery were stress, the practical training environment, and the unavailability of training in Togo. These same factors have been identified in other studies [14] [19] [20]. Another factor cited was the cost of training. Seventy-six percent of the students surveyed found that the specialty of Stomatology and Maxillofacial Surgery offered low earning potential. These students are those who do not have real knowledge of this specialty and are among those who do not prefer it, certainly through ignorance. They are even unaware that those who choose this specialty do so partly because of its high earning potential.

In our study, the most motivating factors for students in Togo to choose the specialization in Stomatology and Maxillofacial Surgery were, in descending order, prestige among colleagues and the possibility of pursuing an academic career. The influence of training occupied a secondary place. Indeed, Stomatology and Maxillofacial Surgery is a specialization where learning is done with good supervision, hence the importance of having a good role model. This process can greatly increase students’ interest in a surgical specialization. Cochran *et al.* in 2004 noted this reality [23].

##### **1) Specialization in MFS and Gender**

The percentage of students wanting to specialize in Stomatology and Maxillofacial Surgery was 25.5% for men and 4% for women. However, this difference

was not significant ( $p = 0.102$ ); therefore, there is no relationship between the student's gender and the choice of Stomatology and MFS as their future specialty. Stomatology and MFS cannot, therefore, be considered the preferred specialty for men. Gargiulo *et al.*, at the University of Vermont, found similar results. Indeed, women are no more likely to be discouraged by surgeons' lifestyles, workload, or lack of role models. However, the surgical personality conferred by Stomatology and MFS, and surgical culture, may constitute a deterrent for women [24]. Our results are consistent with those of Scott *et al.* in Canada, who found that male students were more likely to express interest in surgical specialties than female students [25].

### **2) Specialization in MFS and Age**

In our study, the average age of students who opted for the specialization in Stomatology and MFS was 25.4 years. These results are consistent with those of Scott *et al.*, who, in their study, reported that students who expressed interest in a career in surgery were younger and generally single [25].

### **3) Specialization in MFS and Civilian/Military Student**

There is a statistically significant relationship between the choice of Stomatology and MFS as their future specialty and whether the student is a civilian or a military student in Togo. This could be explained by the fact that both instructors in this discipline at the FHS/UL are military physicians. Young military students identify more easily with their elders, seeing them as role models.

### **4) Specialization in MFS and Practical Work**

When asked whether dissection practice could motivate more students to choose Stomatology and Maxillofacial Surgery, 86% of students felt that these practical exercises would motivate them to specialize in Stomatology and MFS. Indeed, a study conducted among Australian students on their perceptions of dissection sessions and their impact on their choice of surgical specialties confirmed this hypothesis. The identified benefits were improved anatomy skills and respect for the human body [26].

### **5) Specialization in MFS and Level of Medical Education**

Sixty-four point four percent of students who chose Stomatology and MFS as their future specialty were in their sixth year of medical studies. There was a statistically significant relationship between the choice of specialization and the level of education ( $p = 0.001$ ). Since courses are taught primarily in the sixth year, this could explain the greater enthusiasm among sixth-year students for opting for this specialization.

## **5. Conclusion**

Stomatology and MFS remain specialties that are not well-known among medical students. This study revealed considerable interest among medical students in specializing in Stomatology and MFS. The training conditions in our universities do not allow students to better understand all aspects of this specialty. It is therefore appropriate to review the training models for health science students, partic-

ularly in the areas of Stomatology and MFS.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

## References

- [1] Lambert (1677) Les commentaires ou oeuvres chirurgicales. 3ème édition, Flammarion.
- [2] (2024) Livre-Blanc-stomatologie-chirurgie-maxillo-faciale.pdf [Internet]. <https://www.cmf-paris.com/livre-blanc-stomatologie-chirurgie-maxillo-faciale.pdf>
- [3] Herlin, C., Delaval, C., Jammet, P., Goudot, P. and Yachouh, J. (2008) Perception de la chirurgie maxillofaciale et de la stomatologie en France. *Revue de Stomatologie et de Chirurgie Maxillo-Faciale*, **109**, 20-27. <https://doi.org/10.1016/j.stomax.2007.10.002>
- [4] (2017) L'essor de la chirurgie maxillo-faciale, la réparation des gueules cassées. <https://www.academiedentaire.fr/academie/actualites/essor-de-la-chirurgie-maxillo-faciale-la-reparation-des-gueules-cassees-2495/>
- [5] Adewole, R. and Akinwande, J. (2007) Public and Professional Perception of Oral and Maxillofacial Surgery (A Pilot Study). *Nigerian Quarterly Journal of Hospital Medicine*, **17**, 8-12. <https://doi.org/10.4314/nqjhm.v17i1.12533>
- [6] INSD and WHO (2012) Proportion de médecins par rapport à la population. Burkina Faso.
- [7] SurveyMonkey (2024) Échelle de Likert: Exemples et mode d'emploi [Internet]. <https://fr.surveymonkey.com/mp/likert-scale/>
- [8] Undergraduate Surgery Clerkship and the Choice of Surgery as a Career: Perspective from a Developing Country. *World Journal of Surgery*. <https://link.springer.com/article/10.1007/s00268-013-2073-y>
- [9] Williams, G.C., Saizow, R., Ross, L. and Deci, E.L. (1997) Motivation Underlying Career Choice for Internal Medicine and Surgery. *Social Science & Medicine*, **45**, 1705-1713. [https://doi.org/10.1016/s0277-9536\(97\)00103-2](https://doi.org/10.1016/s0277-9536(97)00103-2)
- [10] Boyle, E., Healy, D., Hill, A.D.K., O'Connell, P.R., Kerin, M., McHugh, S., et al. (2012) Career Choices of Today's Medical Students: Where Does Surgery Rank? *Irish Journal of Medical Science*, **182**, 337-343. <https://doi.org/10.1007/s11845-012-0882-x>
- [11] Harris, K. and Jefferies, C. (2019) A Multi-Site Cross-Sectional Survey Exploring Medical Undergraduate Knowledge of Oral and Maxillofacial Surgery. *Journal of Maxillofacial and Oral Surgery*, **18**, 623-627. <https://doi.org/10.1007/s12663-018-1180-6>
- [12] Rogers, M.E., Creed, P.A. and Searle, J. (2012) Why Are Junior Doctors Deterred from Choosing a Surgical Career? *Australian Health Review*, **36**, 191-196. <https://doi.org/10.1071/ah11999>
- [13] (2024) Pourquoi les lycéennes sont minoritaires dans les spécialités scientifiques. <https://www.apel.fr/actualites/pourquoi-les-lyceennes-sont-minoritaires-dans-les-specialites-scientifiques>
- [14] Lange, M.F. (2003) Inégalités de genre et éducation au Togo. <https://unesdoc.unesco.org/ark:/48223/pf0000146799>
- [15] Lefèvre, H., Karila, L., Kerneis, S. and Rouprêt, M. (2010) Motivations et choix des étudiants en médecine français souhaitant accomplir une carrière chirurgicale: Enquête

- nationale auprès de 1742 externes en DCEM4. *Journal de Chirurgie Viscérale*, **147**, 233-239. <https://doi.org/10.1016/j.jchirv.2010.02.002>
- [16] Masson, E. (2024) Perception de la chirurgie maxillofaciale et de la stomatologie en France. EM-Consulte. <https://www.em-consulte.com/article/162425/perception-de-la-chirurgie-maxillofaciale>
- [17] Nandagopal, V., Meghna, Y., Rajasekhar, G. and Sudheer, R. (2019) Perception and Awareness of Oral and Maxillofacial Surgery Speciality among Medical Postgraduate Trainees. *Journal of Maxillofacial and Oral Surgery*, **19**, 456-460. <https://doi.org/10.1007/s12663-019-01310-0>
- [18] Kamal, M., Abdulwahab, M. and Al-Zaid, A. (2021) Knowledge and Perception of Oral and Maxillofacial Surgery as a Specialty Amongst Dental and Medical Students at a Public University in the Gulf Cooperation Council (GCC): A Comparative Study. *Journal of Maxillofacial and Oral Surgery*, **23**, 1569-1578. <https://doi.org/10.1007/s12663-020-01491-z>
- [19] Hamid, S., McNeillis, B. and Saeed, N. (2018) Knowledge of Final-Year Medical Students about Oral and Maxillofacial Surgery: A Two-Centre Study. *British Journal of Oral and Maxillofacial Surgery*, **56**, 582-585. <https://doi.org/10.1016/j.bjoms.2018.06.006>
- [20] Geraldo, R., Tchangai, B., Olivier, A., Kouevi-Koko, T., Pali, E., and Dakey, L. (2020) Perception et criteres de choix de la specialisation en chirurgie par les etudi-ants en medecine a la faculte des sciences de la sante de l'universite de lome (Togo). *European Scientific Journal ESJ*, **16**, 16-56. <https://doi.org/10.19044/esj.2020.v16n9p261>
- [21] Choucair, J., Nemr, E., Sleillaty, G. and Abboud, M. (2007) Choix de la spécialité en médecine: Quels facteurs influencent la décision des étudiants? *Pédagogie Médicale*, **8**, 145-155. <https://doi.org/10.1051/pmed:2007017>
- [22] N'cho-mottoh, M., Coulibaly, I., Boka, B., Bamba-Kamagate, D., Ekou, A. and Aubrege, A. (2022) Choix de carrière des étudiants en médecine ivoiriens en fin de cursus: Facteurs d'influence et aspirations. *Médecine Tropicale et Santé Internationale*, **2**, 2002-2022.
- [23] Cochran, A., Paukert, J.L., Scales, E.M. and Neumayer, L.A. (2004) How Medical Students Define Surgical Mentors. *The American Journal of Surgery*, **187**, 698-701. <https://doi.org/10.1016/j.amjsurg.2003.12.053>
- [24] Scott, I., Matejcek, A., Gowans, M., Wright, B. and Brenneis, F. (2008) Choosing a Career in Surgery: Factors that Influence Canadian Medical Students' Interest in Pursuing a Surgical Career. *Canadian Journal of Surgery*, **51**, 7-37.
- [25] Gargiulo, D.A., Hyman, H. and Hebert, C. (2006) Women in Surgery: Do We Really Understand the Deterrents? *Archives of Surgery*, **141**, 8-40. <https://doi.org/10.1001/archsurg.141.4.405>
- [26] Azer, S.A. and Eizenberg, N. (2007) Do We Need Dissection in an Integrated Problem-Based Learning Medical Course? Perceptions of First- and Second-Year Students. *Surgical and Radiologic Anatomy*, **29**, 173-180. <https://doi.org/10.1007/s00276-007-0180-x>