



Evaluation of the professional trajectory of dentistry graduates in Angola


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Abstract

The aim was to evaluate the professional trajectory of former undergraduate Dentistry students in Angola in terms of time since graduation. This is a cross-sectional observational study of quantitative nature carried out with former students from 06 higher education institutions, among which the first students graduated in 2006. A total of 285 dentists were invited to complete a semi-structured questionnaire to identify the socioeconomic, demographic, professional and academic profile of respondents from their training to their experience during the Covid-19 pandemic. Data obtained were submitted to descriptive analysis and associations with time since graduation were tested. Most former students are female (73.3%), aged 30-39 years (44.5%) who work in the public sector (30.1%). Less than 25% of them (20.6%) reported having attended at least one graduate program. The majority (92.5%) graduated in Luanda, the city where most participants (80.1%) live. For 80.1%, the average monthly income is up to 10 minimum wages (up to 321,810kz; 1kz = R\$ 0,01188), considered regular or insufficient (77.4%). The covid-19 pandemic greatly or extremely impacted the professional life of 58.9% of respondents. Students who graduated up to 2016 were more involved in graduate programs ($p < 0.05$) and reported having higher monthly income ($p < 0.05$). It could be concluded that former Angolan Dentistry students are characterized by being mostly women who graduated in Luanda. The longer the time of professional training, the greater the academic degree and the greater the income satisfaction.

Descriptors: Education, Dental. Practice Management, Dental. Job Market. Angola.

Evaluación de la trayectoria profesional de los graduados de cursos de pregrado en Odontología en Angola

Resumen

El objetivo fue evaluar la trayectoria profesional de los graduados de la carrera de Odontología en Angola en función del tiempo de graduación. Estudio observacional transversal, de carácter cuantitativo, realizado con egresados de seis instituciones de educación superior que ya habían formado promociones, de las cuales el primero se graduó en 2006. En total, se invitó a 285 cirujanos dentistas a completar un cuestionario semi-probado previamente. cuestionario estructurado para identificar el perfil socioeconómico y demográfico, profesional y académico de los encuestados desde su formación hasta su experiencia de la pandemia COVID-19. Los datos obtenidos fueron sometidos a análisis descriptivo y se probaron asociaciones con el tiempo desde la graduación. La mayoría de los titulados son mujeres (73,3%), tienen edades comprendidas entre 30 y 39 años (44,5%) y trabajan en el sector público (30,1%). Menos de una cuarta parte (20,6%) declara haber completado al menos un posgrado. La mayoría (92,5%) se graduó en Luanda, ciudad donde reside la mayoría de los graduados (80,1%). Para el 80,1%, el ingreso mensual promedio es de hasta 10 salarios mínimos (hasta 321.810 kwanzas angoleños, kz; 1 kz = R\$ 0,01188), considerado regular o malo por la mayoría (77,4%). La pandemia de COVID-19 afectó grande o extremadamente la vida profesional del 58,9% de los encuestados. Los egresados hasta 2016 realizaron más posgrados ($p < 0,05$) y declararon tener mayores ingresos mensuales ($p < 0,05$). Se concluyó que los graduados en Odontología de Angola se caracterizan por ser en su mayoría mujeres y graduados en la capital. Cuanto mayor sea el período de formación profesional, mayor será el grado y la satisfacción con los ingresos.

Descriptores: Educación en Odontología. Administración de la Práctica Odontológica. Mercado de Trabajo. Angola.

Avaliação da trajetória profissional dos egressos de cursos de graduação em Odontologia de Angola

Resumo O objetivo foi avaliar a trajetória profissional dos egressos dos cursos de graduação em Odontologia de Angola em função do tempo de formados. Estudo observacional transversal de natureza quantitativa, realizado com os egressos das seis instituições de ensino superior que já haviam formado turmas, dentre as quais a primeira se formou em 2006. Ao todo, 285 cirurgiões-dentistas foram convidados a preencher um questionário pré-testado semiestruturado para identificar o perfil socioeconômico e demográfico, profissional e acadêmico dos respondentes desde a sua formação até a vivência na pandemia de COVID-19. Os dados obtidos foram submetidos à análise descritiva e testadas as associações com o tempo de formado. A maioria dos egressos é do sexo feminino (73,3%), na faixa etária entre 30 e 39 anos (44,5%) e trabalha no setor público (30,1%). Menos de um quarto (20,6%) refere ter cursado pelo menos uma pós-graduação. A maioria (92,5%) se formou em Luanda, cidade em que reside a maior parte dos egressos (80,1%). Para 80,1%, o rendimento mensal médio é de até 10 salários mínimos (até 321.810,00 Kwanzas angolanos), considerado regular ou ruim pela maioria (77,4%). A pandemia de COVID-19 impactou bastante ou extremamente a vida profissional de 58,9% dos respondentes. Egressos formados até 2016 realizaram mais cursos de pós-graduação ($p < 0,05$) e declararam ter maior rendimento mensal ($p < 0,05$). Concluiu-se que os egressos de Odontologia de Angola se caracterizam por serem a maioria mulheres e graduados na capital. Quanto maior o tempo de formação profissional maior a titulação e satisfação com a renda.

Descritores: Educação em Odontologia. Administração da Prática Odontológica. Mercado de Trabalho. Angola.

INTRODUCTION

Angola is located in southern Africa, has population of around 34,834,320 inhabitants¹ and is composed of several ethnic and cultural communities, whose official language is Portuguese. The achievement of national independence, in 1975, represented a moment of change from which the foundations for the construction of a new education system that began to guarantee greater schooling opportunities for students from all social classes were established²

Higher education in Angola was implemented in 1962, with the creation of General University Studies of Angola and the implementation of higher education courses in the cities of Luanda (Medicine, Sciences and Engineering), Huambo (Agronomy and Veterinary Medicine) and Lubango (Literature, Geography and Pedagogy). In 1968, general university studies were transformed into the University of Luanda and in 1969 the University Hospital of Luanda was opened³.

During the colonial period, access to these institutions was intended for a well-defined public, essentially composed of the children of governors, high-ranking officials of the colonial administration or even the so-called assimilated people, that is, discrimination was not only based on racial factors, but also on social factors⁴. With the Proclamation of the Independence of Angola, the University of Angola was created (1976) and in 1985 it was renamed the "Agostinho Neto" University, which remained the only higher education institution in the country until 2009⁵. This was followed by the opening of a series of private higher education institutions and presidential decree No. 191/18 of August 8 allowed a considerable increase in the number of higher education institutions⁶. Therefore, in 2022, Angola had 88 higher education institutions, of which 24 were public and 64 private, a significant evolution when compared to 2002, when the country had only 5 institutions, 1 public and 4 private⁶.

The shortage of human resources for health (RHS) is a global concern and 36 of the 57 countries facing this crisis are African⁷. Three of the Portuguese-speaking African countries (Mozambique, Angola and Guinea-Bissau) are among the most affected⁸. Africa suffers from shortage of dental surgeons, although most studies on the distribution of human

resources ignore data on Dentistry, or, when they do, present data aggregated with other professional categories⁷. Portuguese-speaking African Countries (PALOP) have lower density of health workers compared to the African average and the number of dental surgeons per 10,000 inhabitants is equal to 0.0 in Angola, 0.23 in Cabo Verde, 0.26 in Guinea Bissau, 0.08 in Mozambique and 0.67 in São Tomé and Príncipe⁹.

In this context, the first Dentistry course in Angola was offered by the Private Higher Education Institute of Angola, created in 2000 and in 2007, it was transformed into the Private University of Angola (UPRA), through decree law No. 28 of May 7, 2007¹⁰. In 2022, the country had 6 other institutions offering undergraduate Dentistry courses: Jean Piaget University (UNIPIAGET); the “Alvorecer da Juventude” Higher Education Polytechnic Institute (ISPAJ); the “Benguela” Higher Education Polytechnic Institute (ISPB); the Angola International Higher Education Polytechnic Institute (ISIA); the “Belas” University (UNIBELAS) and the “Kalandula” Polytechnic Institute (ISPEKA)¹¹. The Dentistry course in the country is regulated by decree No. 47/04 of April 23, 2004, completely face-to-face and lasting 5 years. To enter the course, the candidate must have finished high school and have passed the aptitude test¹⁰.

The transition of newly graduated Dentistry students to the job market is an important and challenging stage, with knowledge about the insertion and professional practice of recent graduates in the job market being extremely important, providing assessment and the reflection of teaching in relation to the needs presented by the community in which the course is inserted¹², which impacts on future decisions made by course managers.

In Brazil, the evaluation of the professional trajectory of graduates from Dentistry courses is common¹³ and the policy for monitoring graduates is part of the institutional evaluation instrument of the National Higher Education Assessment System - Sinaes¹⁴. In contrast, this type of process does not exist in Angola and for this reason, this study aimed to evaluate the professional trajectory of graduates from undergraduate Dentistry courses as a function of time since graduation, as this evaluation has not yet been carried out in the country.

METHODS

This is a cross-sectional observational study of quantitative nature, carried out with dental surgeons graduated in Angola. The Ministry of Higher Education, Science, Technology and Innovation, the National Press and the Medical Board of Angola were consulted to collect data related to higher education in Angola.

The present study, approved by the Research Ethics Committee of the São Leopoldo Mandic College, which issued opinion No. 4.721.302, requesting the withdrawal of processing from the “Plataforma Brasil” System, as it did not include Brazilian participants in the research. The opinion recommended the submission of the project to appropriate agency in Angola. Considering that there is no known similar instance in Angola, it was carried out in accordance with Resolution No. 510/2016 of the National Research Ethics Committee and all participants signed the Free and Informed Consent Form.

There are 1542 professionals registered in the Medical Board of Angola, of which 107 are expatriates. No official body consulted, whether academic or professional, provided the contact details of graduates and after numerous attempts, access was sought to the largest number of professionals graduated in Angola and living in the country by sending an invitation to participate in the research in WhatsApp groups (Group of Angolan Dentists - 215 participants; Pediatric Dentists - 7 participants and UPRA - 63 participants), in addition to the request to share the invitation to colleagues who did not receive the invitation.

Data collection was carried out through the application of a semi-structured, pre-tested questionnaire, containing a link (Google Forms), to access the Free and Informed Consent Form and the questionnaire itself. After 15 days, contact was made with graduates to resolve doubts about the research and reinforce the invitation and the sharing of it. In order to seek greater number of participants, between July and December 2021, new invitations and requests for sharing were sent every 30 days.

The questionnaire was developed based on a previous study¹⁵, adapted to the Angolan context, considering language specificities. The questionnaire contained 15 open and 10 closed questions related to the demographic profile (gender, age group, marital status, city in which they currently live); academic profile (school where they graduated in Dentistry,

year of graduation, city of origin, cost of the course, graduate studies, graduate studies area, year of completion of graduate studies); professional profile (main professional activity at the moment, time in the current occupation, city of primary professional activity, type of population services are primarily provided, time between graduation and beginning of professional activity, how the Dentistry job was obtained, current average monthly income, level of satisfaction in relation to monthly income, questions regarding weekly professional activity and experience in the profession during the COVID-19 pandemic. For cases in which respondents no longer practice Dentistry, questions like reason and time since the dentistry activity was stopped.

Descriptive analyses on demographic variables, undergraduate and graduate studies in Dentistry, current professional activities and impact of the pandemic on professional activities were carried out. For this, absolute and relative frequencies were used. Subsequently, the Chi-square and Fisher's exact tests were used to analyze associations with time since graduation (dichotomized by the median). The categorization of the importance scores of knowledge acquired during the undergraduate course and how prepared the participant felt to enter the job market after completing undergraduate studies was carried out using the median scores in the sample. All analyses were performed using the R software (R Foundation for Statistical Computing, Vienna, Austria), with 5% significance level.

RESULTS

Of the total of 285 directly approached graduates, 173 professionals responded to the instrument (response rate of 60.7%). After checking the responses, 27 participants were excluded: 18 for not having graduated in Angola, 6 for not yet having graduated at the time of completing the instrument and 3 for not having informed the year of graduation, resulting in final sample of 146 graduates.

The majority of respondents were residents of Luanda (80.1%), female (73.3%), married (52.7%), 44.5% aged 30-39 and 33.6 % aged over 40 years. The majority of participants graduated in Luanda (92.5%) with 41.8% at UNIPIAGET; 37.0% at UPRA; 8.2% at ISPAJ; 7.5% at ISPB; 2.7% at ISIA and 2.7% at UNIBELAS. Only 20.6% of respondents had graduate degree completed (20.6%) or in progress (11.6%), of which 76.6% cited specialization and 31.9% a master's degree. The most cited areas were Orthodontics (5.5%) and Oral and Maxillofacial Surgery (4.1%).

The majority of participants work in care activities (87%) and have been in their current occupation for less than 5 years (62.3%), serving mostly low-income (46.6%) and middle-income (49.3%) populations. It was also observed that 23.3% took more than 1 year to start professional activities after graduation and 12.3% reported that they were not yet in the job market. The majority reported having average monthly income of up to 10 minimum wages (321,810.00 Angolan Kwanzas; 1 kz =R\$ 0.00118), considered by the majority to be regular (47.3%) or low (30.1%). A small number of graduates (3.5%) reported no longer practicing Dentistry due to low remuneration or lack of opportunities.

Table 1 shows the analysis of the association of investigated variables with year of graduation, categorized by the median. It was observed that the association between cost of the undergraduate course and year of graduation presented p-value close to the threshold ($p=0.0531$), and among those graduated until 2016, 26.8% received government scholarship, but for those who graduated after that year, this percentage was 10.9%. Significant association between having completed a graduate degree and year of graduation was observed ($p<0.05$): among those graduated until 2016, 32.9% completed specialization, among those graduated after 2016, only 3.1% completed specialization. The percentage of professionals with master's degree is 14.6% among those graduated until 2016 and 4.7% among those graduated after that year. Monthly income was also associated with year of graduation ($p<0.05$): those graduated before 2016 have higher average monthly income. Significant association was also observed between type of professional activity and year of graduation ($p<0.05$): 13.4% and 31.2% of those graduated up to 2016 and after, respectively, perform exclusively private activity and 28.0 % and 9.4% of those graduated until 2016 and after, respectively, perform public and private activities (50% of each).

DISCUSSION

This study found that the profile and professional trajectory of Angolan Dentistry graduates were associated with time since graduation and that the majority of responding graduates were female and graduated in the country's capital.

Table 1. Analysis of associations with year of graduation of graduates from undergraduate Dentistry courses in Angola (n=146).

Variables	Category	Total sample Frequency (%1)	Year of graduation		p-value
			Up to 2016	After 2016	
			Frequency (%1)		
Gender	Female	107 (73.3)	58 (70.7)	49 (76.6)	0.4295 ³
	Male	39 (26.7)	24 (29.3)	15 (23.4)	
School where undergraduate course was carried out	Benguela	11 (7.5)	6 (7.3)	5 (7.8)	1.0000 ⁴
	Luanda	135 (92.5)	76 (92.7)	59 (92.2)	
Undergraduate course costs	Government scholarship	29 (19.9)	22 (26.8)	7 (10.9)	0.0531 ³
	Own/family financing	106 (74.1)	55 (67.1)	51 (79.7)	
	Own financing and scholarship	11 (7.5)	5 (6.1)	6 (9.4)	
Graduate level	Training	2 (1.4%)	1 (1.2)	1 (1.6)	<0.0001 ⁴
	Specialization	29 (19.9)	27 (32.9)	2 (3.1)	
	Master's degree	15 (10.3%)	12 (14.6)	3 (4.7)	
	No/No response	100 (68.5%)	42 (51.2)	58 (90.6)	
Importance of the knowledge acquired during graduation for professional performance	<10 ²	69 (47.3)	43 (52.4)	26 (40.6)	0.1560 ³
	10	77 (52.7)	39 (47.6)	38 (59.4)	
When graduated, felt prepared to enter the job market	<8 ²	64 (43.8)	38 (46.3)	26 (40.6)	0.4897 ³
	≥8	82 (56.2)	44 (53.7)	38 (59.4)	
City in which priority professional activity is carried out	Luanda	122 (83.6)	67 (81.7)	55 (85.9)	0.652 ⁴
	Benguela	12 (8.2%)	6 (7.3)	6 (9.4)	
	Cabinda	3 (2.1)	1 (1.2)	2 (3.1)	
	Lunda-Norte	2 (1.4%)	2 (2.4)	-	
	Huambo	4 (2.7%)	3 (3.7)	1 (1.6)	
	Lubango	2 (1.4%)	2 (2.4)	-	
Work at Luanda	Yes	122 (83.6)	67 (81.7)	55 (85.9)	0.4938 ³
	No	24 (16.4)	15 (18.3)	9 (14.1)	

Continues

					Continuation
How the Dentistry job was obtained	Public tender	57 (39.0%)	35 (42.7)	22 (34.3)	0.0708 ³
	Recommendation	42 (28.8)	22 (26.8)	20 (31.2)	
	CV selection	24 (16.4)	14 (17.1)	10 (15.6)	
	Own office	5 (3.4)	5 (6.1)	-	
	Others	18 (12.3)	6 (7.3)	12 (18.8)	
Monthly income	Up to 5 minimum wages	40 (27.4)	9 (11.0)	31 (48.4)	<0.0001 ⁴
	Between 5 and 10 minimum wages	77 (52.7)	50 (61.0)	27 (42.2)	
	Between 11 and 20 minimum wages	23 (15.8)	17 (20.7)	6 (9.4)	
	Above de 20 minimum wages	6 (4.1)	6 (7.3)	-	
Level of satisfaction regarding monthly income	Good	24 (16.4)	16 (19.5)	8 (12.5)	0.5374 ⁴
	Excellent	4 (2.7)	1 (1.2)	3 (4.7)	
	Very good	5 (3.4)	2 (2.4)	3 (4.7)	
	Regular	69 (47.3)	38 (46.3)	31 (48.4)	
	Poor	44 (30.1)	25 (30.5)	19 (29.7)	
Regarding the weekly professional activity	Exclusively private	31 (21.2)	11 (13.4)	20 (31.2)	0.0089 ³
	Exclusively public	44 (30.1)	27 (32.9)	17 (26.6)	
	More private than public	24 (16.4)	12 (14.6)	12 (18.8)	
	More public than private	13 (8.9)	8 (9.8)	5 (7.8)	
	Public and private alike	29 (19.9)	23 (28.0)	6 (9.4)	
	No longer practices dentistry	5 (3.4)	1 (1.2)	4 (6.2)	
Impact of COVID-19 on professional life	No impact at all	3 (2.1)	3 (3.7)	-	0.2062 ³
	Slightly impacted	21 (14.4)	14 (17.1)	7 (10.9)	
	Moderately impacted	36 (24.7)	22 (26.80)	14 (21.9)	
	Greatly impacted	62 (42.5)	29 (35.4)	33 (51.60)	
	Enormously impacted	24 (16.4)	14 (17.1)	10 (15.6)	
Stopped working during the pandemic	No	57 (39.0)	34 (41.5)	23 (35.9)	0.497 ³
	Yes	89 (61.0)	48 (58.5)	41 (64.1)	

¹Percentages columns; ²Sample median; ³Chi-square test; ⁴Fisher's exact test.

The higher frequency of female graduates is in line with the phenomenon of the profession feminization also reported in several studies carried out in other countries¹⁶⁻¹⁹. Women demonstrate greater availability to qualified listening in patient care, a characteristic focused on the needs of people and the health system^{15,20}. It is worth mentioning that when referring to the training of human resources for research in Angola, it was observed that universities graduate more students for the care labor market than for scientific research²¹, findings corroborated by data from the present study, with few research initiatives including aspects on female representation in the country.

The majority of graduates attended their undergraduate studies in the country's capital (Luanda) and this can be understood by the country's historical process of emancipation. After the Proclamation of Independence, the country was torn apart by political, economic and social differences that marked the beginning of a civil war that lasted 27 years and resulted in the infrastructure destruction, especially outside Luanda. The most affected regions suffered even more due to the absenteeism of teachers, low school attendance and limitations of the state budget to cover the necessary investments for the development of human resources and infrastructure²², as the majority of investments were concentrated in the capital.

Of former graduates surveyed, only 20.6% had completed graduate course and the most cited area was Orthodontics (5.5%). In Angola, only private higher education institutions are authorized to offer undergraduate Dentistry courses and no institution in the country offers graduate courses in the area. Graduates who want to specialize must seek the opportunity in other countries and to do so, they must either have the financial means to pay for the studies or must apply for scholarships, when available. Applications are exclusively made on the official website of the National Institute of Scholarship Management (INAGBE), according to requirements such as not being over 35 years of age, having final course average score equal to or greater than 16 points, and selected candidates are more frequently sent to countries such as South Africa, Argentina, Germany, Belgium, Brazil and Portugal. The choice of areas most cited by graduates may be based on the results of studies^{14, 20,23}, which indicate that the choice of the course area is related to the expectation of quick financial return.

In the current study, around 52.7% of graduates gave score 10 to the knowledge acquired during graduation for professional practice. In a study with graduates from Dentistry courses at the Federal University of Rio Grande do Sul, graduates also attributed great importance to knowledge acquired during the course¹⁶. According to the author, this indicator reveals the quality of teaching offered at the university, as well as a recognition of the importance of academic training for the purpose of insertion in the job market. Satisfying the expectations of users and beneficiaries of a higher education institution and the performance of its graduates in the labor market are fundamental for improving the quality of education²⁴.

The majority of graduates rated their preparation to face the job market after graduation with score higher than 8, although the majority expressed that if they could, they would improve their undergraduate curriculum, pointing out the need for extra training that is not part of the curriculum. A study with Brazilian graduates shows that the perception of feeling qualified for the job market is associated with the experience of different learning scenarios¹², which is a different reality for Angolan graduates exposed to different educational policies, teaching methodologies and curricular content and far below the reality of Brazilian graduates.

When evaluating the level of satisfaction in relation to monthly income, the majority classified it as regular or poor (77.4%), which differs from the findings of studies carried out in Brazil,^{23,25,26} in which the majority of respondents were satisfied with their monthly income (5 to 10 minimum wages). According to Presidential Decree 54/2227, published in the Union Official Gazette on February 17, the minimum wage in Angola is officially set at 32.181,15 kwanzas (R\$ 390,00). Salary in compliance with the job position is an extremely relevant factor for worker satisfaction, who must be properly remunerated and valued. Presidential decree No. 147/22 of June 7, approved the adjustment of the base salaries of professionals from the National Health Service integrated into special regime careers, namely the category of diagnosis and therapy and hospital support to 252.695 kz (R\$ 2.771,00).

In this study, it was found that the profile and professional trajectory of graduates were associated with time since graduation. Participants graduated until 2016 took more graduate courses, reported to have higher monthly income and,

at the limit of significance, had more support from government scholarships to carry out their courses. Professional maturity that occurs according to time after graduation provides financial stability, especially when there is double employment bond²⁸ and the period of 5 years after graduation is estimated to improve remuneration²⁹.

In the current study, the prevalence of graduates with government scholarship was lower among the group of recent graduates and one of the reasons that may have led to a decrease in government scholarships for more recent graduates was the decrease in public expenditure due to the financial crisis in course in that country and in the world, and education was not exempt. Angola has a poorly diversified economic structure, concentrated on oil activities, which have been suffering for some years with the crisis resulting from the fall in the oil price in the international market, resulting in the need to reduce public expenditure³⁰. Scholarships in Angola are annually awarded based on quotas defined in the National Development Plan (PDN) 2018-2022, distributed to all provinces of the country in accordance with the training development priorities and goals of the National Staff Training Plan³¹.

In Angola, the public sector includes the National Health System (SNS), the Health Services of the Angolan Armed Forces and the Health Services of the Ministry of Internal Affairs. The public sector still remains the main service provider despite the difficulties and not achieving the desired quality in most cases⁵. The current research found a greater number of professionals employed in the public sector compared to the private sector, unlike other studies in which the private service represents the largest employer^{20,32}. In comparison to labor market data in Brazil, the same trend can be seen in Angola, with large participation of the public sector in the labor market¹⁴.

The investment by the Angolan government in training graduates returns to the state in the form of service provision. Many graduates opt for the public sector, for the labor rights, freedoms and guarantees that public servants enjoy during the exercise of their functions, provided for in the constitution and the law (law on public service No. 26/22)³³, which include paid holidays, Christmas bonus, retirement and continuing education. Although most professionals work in the public sector, only 1/3 of participants (32.9%) are in the job market through public tender, as there are other forms of hiring such as recommendation or public employment contract. This contract is valid for a period of up to 24 months and expires automatically, ceasing without any formality regarding the processing of salaries and other financial benefits³³. The opening of the public tender depends on the number of employees currently in the service, with new hires only being permitted in cases where the number of employees is lower than the number legally created³⁴.

An interesting fact is that the research shows few graduates working in teaching activities (8.9%), although around 30% reported having completed or in progress graduate degree. When analyzing the professional trajectory of graduates of Fiocruz master's courses in Africa, it was observed that the training of human resources and the development of the health workforce is "critical in Africa due to insufficient personnel, devaluation of salaries, lack of opportunities, lack of training and continuing education schools, in addition to emigration and brain drain from Africa²⁴". According to the author, keeping graduates in their home countries after completing their Graduate Program has been one of the biggest challenges, especially due to the low remuneration in African countries, which offer fewer professional opportunities compared to European countries.

In the current research, there was impact of COVID-19 on the professional lives of participants, in which during a given period, the majority stopped working, and similarly to another study, the majority of dental surgeons reported that the dental care routine suffered an 85% reduction in revenue, either due to the cancellation of appointments or reduction in the number of appointments³⁵. In Angola, professionals were forced to seek experience in other countries in order to deal with the phenomenon.

It is noteworthy that the Dentistry education is still very new in the country and possibly for this reason, there are not yet enough leaders to form professional associations exclusively responsible for taking care of policies aimed at the Dentistry teaching. It is necessary to create an independent institution to take care and monitor the development of dental education policies in the country, as observed in other realities, to set goals and provide growth, not only for the academic curriculum, but also for professionals who work in the area. The present study had the participation of a convenience sample restricted to WhatsApp groups due to the fact that there were no organized data to be provided by

institutions, which could be an important study limitation, but in contrast, these are initial data that represent a first look at a topic that has not yet been researched in the country.

Among the study limitations, the cross-sectional design stands out, which does not allow the inference of causality to associations found and the sample, which is not representative of graduates, in the sense that it was restricted to those who could be approached through of the strategy used. Nevertheless, this is the first study carried out with Dentistry graduates from Angola and brings primary data that can guide studies on this very important topic and studies that value and encourage the planning, creation, development and evaluation of policies and strategies aimed at expanding and qualifying the training of human resources in the Dentistry area in order to respond to the oral health needs of the Angolan population.

CONCLUSION

The profile of Dentistry graduates from Angola is characterized by female professionals, who completed their degree in the country's capital. It was observed that the public sector is the largest employer and graduates reported income dissatisfaction. On the other hand, the longer the time since graduation, the higher the degree, double bond and the greater the income satisfaction.

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