



CLINICAL RESEARCH:

Dentistry and Generation Z: Aspirations of Recent Graduates

Odontología y Generación Z: Aspiraciones de los Recién Egresados

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ABSTRACT: Currently, the vast majority of dental students and recent graduates belong to Generation Z (born since 1996). They have been characterized by solving problems with their creativity and the use of technological resources. It is important to be aware of their perceptions regarding their experiences, future plans and aspirations. The aim of the study was to analyze the professional aspirations of recent graduates of Dentistry, belonging to Generation Z who studied at a University in Mexico. Descriptive, observational and cross-sectional study based on a survey developed in Google Forms, consisting of questions about demographic data, professional aspirations and motivations of recent graduates of Dentistry. The database was organized in Microsoft Excel. The final data were analyzed with STATISTICS software, using the chi-square test to compare proportions of categorical variables between groups. A value of $p < 0.05$ was considered statistically significant. The sample of 107 responses consisted of 85 females and 22 males, and the average age was 23.7 years. The most important findings were that 100% of the recent graduates planned to continue with their dental profession, the majority had plans to start a Postgraduate Program and work in private practice as owners or associates. There were statistically significant differences regarding their mobility plans, and personal growth was identified as their main motivation. The findings of the study demonstrate that the recent graduates of Dentistry belonging to Generation Z are determined to continue their professional training with great efforts to carry out a quality clinical practice for the benefit of society.

KEYWORDS: Aspirations; Dental education; Generation Z; Recent graduates.

RESUMEN: Actualmente, la gran mayoría de los estudiantes y recién egresados de Odontología pertenecen a la Generación Z (nacidos desde el año 1996). Se han caracterizado por solucionar problemas aplicando su creatividad y el uso de recursos tecnológicos. Es importante conocer sus percepciones con respecto a sus experiencias, planes futuros y aspiraciones. El objetivo del estudio fue analizar las



aspiraciones profesionales de los recién egresados de la Licenciatura en Odontología, pertenecientes a la Generación Z, quienes estudiaron en una Universidad de México. Estudio descriptivo, observacional y transversal basado en una encuesta desarrollada en Google Forms, constando de preguntas acerca de datos demográficos, aspiraciones profesionales y motivaciones. La base de datos fue organizada en Microsoft Excel. Los datos finales fueron analizados con el software STATISTICS, empleando la prueba chi cuadrada para comparar proporciones de las variables categóricas entre los grupos. Un valor de $p < 0.05$ se consideró como estadísticamente significativo. La muestra de 107 respuestas constó de 85 mujeres y 22 hombres, y el promedio de edad fue de 23.7 años. El 100% de los egresados planeaban continuar con su profesión odontológica, la mayoría tenía planes de iniciar un Posgrado y ejercer su profesión en consulta privada como dueño o socio. Hubo diferencias estadísticamente significativas con respecto a los planes de movilidad de los egresados. Se identificó al crecimiento personal como su principal motivación. Los hallazgos del estudio demuestran que los recién graduados de Odontología pertenecientes a la Generación Z están determinados a continuar con su preparación profesional con grandes esfuerzos para ejercer una práctica clínica de calidad en beneficio de la sociedad.

PALABRAS CLAVE: Aspiraciones; Educación dental; Generación Z; Recién egresados.

INTRODUCTION

Dentistry, being an important component of health, requires its students and graduates to have great determination and motivation to carry out hard work, large investments and sacrifice (1). The decision to start, continue and conclude the career can be based on different factors, for example: the desire to help people, the fulfillment of personal and family expectations, the search for financial status and social prestige, interest in knowledge and science, and the advancement of technology, among others (2, 3).

Currently, the vast majority of dental students and recent graduates belong to Generation Z, as they were born since 1996. This means that the most representative workforce is training in their profession and is already putting it into practice (4). This generation has been characterized by a motivation to excel, to solve problems and to continually seek equity and social justice, applying their creativity and innovative spirit with the use of technological resources (5).

It is important to know the perceptions of predoctoral students and recent graduates of Dentistry regarding their experiences, future plans after graduation, and aspirations to invest in their careers (6). The dental workforce must remain motivated and continuously prepare to benefit the population it serves (7).

Therefore, the aim of the study was to analyze the professional aspirations of recent graduates of Dentistry, belonging to Generation Z, who studied at a University in Mexico that offers a double degree program to practice professionally abroad.

METHODS

Descriptive, observational and cross-sectional study based on a survey about aspirations applied to recent graduates of Dentistry at La Salle Bajío University (León, Guanajuato, Mexico), who were in their internship year (Professional Social Service). The recent graduates born in 1996 or later, were included in the study as they belonged to Generation Z. The study had the approval of the

Research Ethics Committee of the University, with the code 0024-200821-FO.

First, a pilot survey was carried out in August 2021 with 60 recent graduates, whose results were not included in the final analysis. However, it was determined that the survey was viable for application.

As part of the study, recent graduates of the generations 2019, 2020, 2021, 2022 and 2023 were invited to participate in the study, with a message sent in September 2021 for the 2019, 2020 and 2021 generations, and later in May 2023 for the 2022 and 2023 generations through WhatsApp to encourage them to answer

the digital survey. The message with the link to the survey was sent on 3 occasions to provide a general reminder, as the questionnaire was open for a survey period of 14 days.

The survey was developed on Google Forms, consisting of 4 questions about demographics, 4 questions about their professional aspirations (only 1 answer could be selected for each question), and 1 question about their professional motivations. The questionnaire is described in Table 1. The same form had a link to read and download the general information of the study, the informed consent and a checkmark with the legend "I agree to voluntarily participate in the study", which had to be selected.

Table 1. Survey about aspirations for recent graduates of Dentistry (Generation Z).

Question	Answers
1) Birth date	Select from calendar
2) Age	Numerical answer
3) Sex	A) Female B) Male
4) City of origin	A) Local city of the University (León) B) Foreign city of the same state (Guanajuato) C) Foreign city of the same country (Mexico) D) Foreign city from abroad
5) In the next five years, do you plan to continue practicing Dentistry?	A) Yes B) No
6) In the next five years, what is your main professional aspiration?	A) Practice General Dentistry B) Study a Postgraduate Program C) Obtain a Double Degree to practice in the USA
7) In the next five years, where do you plan to live and work?	A) In your own hometown B) Moving to another city in Mexico C) Abroad
8) In the next five years, how do you plan to practice your profession?	A) Private practice, as owner or associate B) Private practice, as an employee C) Teaching and education
9) What is your main professional motivation?	A) Financial rewards B) Altruism and social service C) Personal growth

Once the survey was closed, the answers were downloaded in Microsoft Excel, the database was reviewed to identify the correct completion of the surveys and duplicates were discarded. The final data were analyzed with STATISTICS software, using the chi-square test to compare proportions of categorical variables between groups, with a one-tailed hypothesis. A value of $p < 0.05$ was considered statistically significant.

RESULTS

The total number of recent graduates of Dentistry who received the questionnaire was 245, including the generations 2019 ($n=21$), 2020 ($n=67$), 2021 ($n=103$), 2022 ($n=25$) and 2023 ($n=29$). None of the possible respondents were excluded. After receiving the responses, reviewing the database and discarding duplicates, the total number of surveys included in the study was 107, representing 43.7% of voluntary participation in the study.

The sample of 107 responses consisted of 85 females (79.4%) and 22 males (20.6%). The range of birth years of the participants was 1996-2000, and the average age at the time of filling out the survey was 23.7 years. For practicality in the data analysis, the participants were distributed into 2 groups according to their origin: locals and foreigners. In this way, 48 recent graduates (44.9%) were from the city of León (where the University

is located), and the remaining 59 (55.1%) were foreigners from another city, state or country. Demographic data are represented in Table 2.

Regarding the aspirations of the recent graduates belonging to Generation Z, the main findings that were found were that all of them (100%) planned to continue with their dental profession, and that the majority of them had plans to start a Postgraduate Program ($n=77$, 72.0%), remain in their city of origin ($n=47$, 43.9%), and practice their profession in private clinics as owners or associates ($n=86$, 80.4%). Furthermore, personal growth was identified as the main motivation of recent graduates ($n=64$, 59.8%). The results of the aspirations are described in Table 3.

After having applied the chi square test to compare proportions of the categorical variables between the sexes (female vs. male) and the groups of origin (locals vs. foreigners), a statistically significant difference was found for the variable "place for living and working", represented by a greater percentage of males who planned to move abroad (40.9%, p value=0.02), and a greater number of foreigners who planned to continue moving to other cities in Mexico (42.4%, p value=0.003). On the other hand, it was found that a large percentage of females (47.1%, p value=0.02) and locals (62.5%, p value=0.003) preferred to remain in their city of origin. The results of the comparisons by group are arranged in Table 4.

Table 2. Demographic data from the survey.

Variable	N (%)
Age (average)	23.7 ± 1.1
Sex	
Female	85 (79.4%)
Male	22 (20.6%)
City of origin	
Local city of the University (León)	48 (44.9%)
Foreign origin (Total)	59 (55.1%)
Foreign city of the same state (Guanajuato)	25 (23.4%)
Foreign city of the same country (Mexico)	32 (29.9%)
Foreign city from abroad	2 (1.8%)

Table 3. Aspirations results from the survey.

Variable	N (%)
Plans to continue practicing dentistry	
Yes	107 (100%)
No	0 (0%)
Main professional aspiration	
Practice General Dentistry	6 (5.6%)
Study a Postgraduate Program	77 (72.0%)
Obtain a Double Degree to practice in the USA	24 (22.4%)
Place for living and working	
In their own hometown	47 (43.9%)
Moving to another city in Mexico	33 (30.9%)
Abroad	27 (25.2%)
Plans for practicing dental profession	
Private practice, as owner or associate	86 (80.4%)
Private practice, as an employee	19 (17.7%)
Teaching and education	2 (1.9%)
Main professional motivation	
Financial rewards	22 (20.6%)
Altruism and social service	21 (19.6%)
Personal growth	64 (59.8%)

Table 4. Mobility plans for recent graduates.

Place for living and working (comparison by sex), p value=0.02		
Variable	Females (n=85)	Males (n=22)
In their own hometown	40 (47.1%)	7 (31.8%)
Moving to another city in Mexico	27 (31.8%)	6 (27.3%)
Abroad	18 (21.1%)	9 (40.9%)
Place for living and working (comparison by origin), p value=0.003		
Variable	Locals (n=48)	Foreigners (n=59)
In their own hometown	30 (62.5%)	17 (28.8%)
Moving to another city in Mexico	8 (16.7%)	25 (42.4%)
Abroad	10 (20.8%)	17 (28.8%)

DISCUSSION

To our knowledge, this is the first study focused on analyzing the professional aspirations of recent graduates of Dentistry, belonging to Generation Z. It is interesting because they have been described as a digital generation, with a preference for the immediacy of results and with greater awareness to help those in need. For these and more qualities, Generation Z is considered to have a great potential for empathy and professional responsibility, which are essential in Dentistry. (8, 9).

As mentioned previously, it is important to know the aspirations and future plans of recent graduates of health careers, in this particular case of Dentistry, to know the current trends of the profession and to provide support to students. The analysis of future research should be focused on producing evidence to be considered by the professional leaders in the Universities, so they could offer additional opportunities for young people who aspire to be professionals (10).

Regarding the analysis carried out in this study for recent graduates of a Dental School in Mexico, it was found that in the short term all of them (100%) were planning to continue with

their dental profession, with a greater interest in studying a Postgraduate Program (72.0%) and working in private practice as owner or associate of a dental clinic (80.4%). In general, this is the common life project in Mexican society for new health professionals.

There are reports in other countries that also have a high percentage of students or recent graduates who have the desire to study a Postgraduate Program in Dentistry, for example: 80% of final year students in Egypt (11), about 60% of recent graduates in Libya(3), and about 50% of students in Malaysia (7). However, different results have been found in other countries. For example, in the USA it has been identified that General Dentistry is the most popular prospective path for students (12).

The high percentage of recent graduates seeking a specialization may be due to an interest in clinical and academic excellence, an evident increase in income, having a secure job, and the future possibility of joining an academic institution as faculty (13). In addition, the learning and mentoring they have received from their teachers may act as a model of influence (12). It is important that Dental Schools faculty are aware that they have the ability to cause a positive impact

during the education of students, and that they can promote the search for personal and professional excellence, so that graduates continue to achieve greater goals (14).

On the other hand, a considerable percentage of recent graduates (more than 20%) were pursuing a double degree to live and work in the USA, probably for reasons that have been exposed in other studies, such as: greater facilities in developed countries, higher incomes, greater technological advances and more promising futures (15). This has also been the case in some other countries that have reported that their graduates seek to migrate abroad in search of better professional opportunities (16).

According to the findings of mobility, a statistically significant difference was found indicating that the majority of males had plans to live abroad, while the majority of females preferred to remain in their city of origin. It was also found that foreign graduates had plans to continue moving to other cities within the country, which may represent the desire to continue with the independence and flexibility they experienced by living away from their parents' house during their studies (17).

Among the main motivations for studying Dentistry, other studies have highlighted: social service, independence, technical abilities, and prestige and financial security (18). Although this study did not analyze the reasons for entering the career, it was found that personal growth was the main motivation to continue practicing the profession after graduation. This is consistent with the characteristics of Generation Z that they have the motivation to win and the determination to make their projects come true (4).

It is important to be aware that current times require dentists who know how to work in teams

with complementary skills to meet the health needs of populations, since oral diseases affect billions of people in the world, with a higher rate of inattention in rural areas of countries with economic inequalities, where dental services are unavailable or unaffordable (19). Therefore, well-trained professionals are required to help overcome the barriers and inequity of global oral health for the most marginalized social groups (20). The recent graduates of Generation Z have characteristics that can boost them as heroes for these situations.

Regarding the limitations of this study, it can be mentioned the small sample size and the lower participation by males who recently graduated from Dentistry. However, it has been reported that female representation has grown significantly in Dental Schools in the last 2 decades, especially in the Western world (21). In this way, it is common to have a higher percentage of females as students, faculty and executive officers in Dentistry.

About the perspectives, it would be interesting to collect data for the recent graduates of the 2024-2025 generations and thus complement the information, in addition to including the results of other national and international Dental Schools to have a more global vision of the aspirations of Generation Z.

CONCLUSION

The findings of the study reflect the aspirations of recent graduates of Dentistry belonging to Generation Z, demonstrating that they are determined to continue their professional training with great efforts to carry out a quality clinical practice for the benefit of society.

Some of the main implications arising from the analysis involve the need to encourage dental students and graduates to develop perso-

nal skills, strategic planning, and multidisciplinary and intercultural work. New lines of research should be approached with an international focus and forward-thinking to achieve greater goals in Dental Education.

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CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

AUTHOR CONTRIBUTIONS STATEMENT

Conceptualization and design, literature review, Methodology, Investigation and data collection, Writing-original draft preparation, writing-review & editing: H.D.L.S.

Formal analysis, Data Analysis and Interpretation: J.M.G.M.

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