

Descriptive study of the dental market in the Austro region of Ecuador

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Abstract

Background: Since time immemorial, marketing in dentistry has been a subject based on competition due to the high demand of public and private institutions rendering their services, therefore, due to the strong demand, different ways of reaching patients have been modernized. However, each public or private institution must follow the new marketing rules to achieve success.

Methodology: A descriptive observational cross-sectional study was carried out with a total of 9 dental clinics in the province of Azuay, Ecuador. The study used surveys with multiple-choice questions based on the PEST analysis.

Results: After the analysis through the different surveys the owners were aware of dental marketing but were not clear on how to apply it.

Conclusions: Marketing in dentistry in terms of advertising can help patients to understand the treatments available, the main objective of marketing encompasses the various methods for a dental office or clinic to achieve its objectives in terms of profitability, which is strictly linked to maintaining the oral health of patients. Among the nine professionals interviewed, the same ones that through web pages and social networks carried out publicity and promotion obtained the greatest result of the four points evaluated, a higher level of financial income and the reaction of the patients, obtaining new patients as a result, this means that within the dental market of Ecuador, the different professionals are aware of the methods used in marketing, however, this does not mean that in the future they will maintain the same results due to the fact that marketing in dentistry is in constant change.

Key words: Dental market; Oral health care market; Dental services market; Dentists; Supply and demand; Economics; Consumption of dental services; Dental market; AND -Dentistry OR- Odontology

1. Introduction

The dental market has undergone some changes in recent years, in which the number of professionals established in the country has increased, increasing the quality of work, and increasing the culture and demands of patients. To approach the subject. Marketing is understood as the discipline dedicated to the analysis of the behavior of markets and consumers with the aim of attracting, retaining and building customer loyalty by satisfying their needs, the purpose of which is to prove that there is a sufficient number of individuals, companies or other dental entities that, given certain conditions, present a demand that justifies the implementation of a certain program for the production of goods or services [1].

At present we can appreciate a very competitive market when it comes to dentistry since there is an overpopulation of dentists who provide their services and collective service delivery plans. In addition, there are dental technicians who offer dental services that do not correspond to them and in today's societies there are various factors, both cultural,

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economic and political. Society prioritizes other materialistic expenditures such as purchasing a vehicle, electronic devices, etc. Dentistry is seen as an expense but not as an investment. A short time ago there was a certain rejection of the use of marketing, because it was considered unnecessary. This is how dental marketing strategies were born, improving the position, offer, quality and productivity, building customer loyalty and making the incursion of new ones attractive. [2] The evolution of digital technology and the Internet has revolutionized, and every day there are more ways and tools that facilitate the daily management of the dental clinic. One of these ways is dental marketing on the Internet. It is also very important to have an inventory in the provision of a service, it is fundamental in the planning, organization, and the very management of the stock depends on the quality of the service offered. According to the author Ballesteros, the work of the logistics system of the organization should strive to achieve advanced schemes with a high staff training which will increase the competitiveness of the company [3].

Oral health policy must be formulated not only to answer the questions of the past and present, but also the questions of the future. Access to oral health care is a hallmark of privately financed markets characterized by inefficiency and limited access to care for the sick and poor compared to their healthy and wealthy compatriots. But increasing government subsidies to the poor may not increase their opportunities unless affordability issues are addressed. Everyone has access to public services, especially those with low incomes and disabilities [4] [5] .

New technologies allow service companies to perform services that were not possible before and to perform traditional tasks more efficiently. But as exciting as the development of the Internet and its potential to transform business and even society itself is, economic historians point to a number of earlier innovations that generated similar excitement [6]. The rise of social networking, or also known as the digital age, in dentistry has paved the most important way for the dental market worldwide, which through different approaches and trainings from various parts of the world can share their commonly taught techniques approved dental techniques, services and products, This is the most important strategic point of view within the dental marketing, however it requires highly trained personnel who can perform the necessary publicity to increase the marketing of the dental company. It is also necessary to emphasize that depending on the size of the practice, the inclusion of a corporate group practice elevates the image of the practice and the care of more patients.

Corporate group practice raises the image of the practice and the care of more patients [7] Which would increase the amount and type of fee for service payment [8]. However, it is necessary to emphasize that the success of the marketing used in the clinic will meet the proposed objectives if it offers better health rather than a palliative of the disease [9]. The substantial changes, both technical and social, that dentistry has developed in the last forty years, place the current dentist, whether general or specialist, before new challenges and competencies. Many assumptions should be modified in order to achieve a better job placement and ensure sustained success. Some of the marketing tools successfully used in the business world can be applied to oral health care and, at the same time, to attract potential clients, who would be our patients [10]. Advertising and active "selling" of oral health services are designed to create dental consumers, not to empower them [11]. With increased competition in the dental services market, it is necessary to use marketing tools that emphasize the dental surgeon and dental clinics. Corporate market share continues to expand through inorganic and organic growth and new financial backers [12].

Digital marketing is one of the fastest growing available resources among healthcare professionals , who use websites and social networks as a means of communication , advertising and promotion [13] .

1.1. Objectives

The main objective of this article is to gather quantifiable information at the level of dental marketing planning present in the dental market in the Austro of Ecuador, in order to achieve the satisfaction of both our patients and all the components of our profession: institutions, industry and professionals.

2. Materials and Methods

A descriptive observational cross-sectional study was carried out with a total of 15 dental clinics in the province of Azuay, Ecuador, using surveys with multiple-choice questions based on the PEST analysis.

To develop the surveys we first selected the participants, in this case they were executed in the dental clinics in rural areas of the Province of Azuay Ecuador to provide a new perspective at the level of marketing in the same, which allow us to evaluate its operation and effectiveness for both the company and its interaction with society. The PEST analysis provides a complete description of the opportunities and threats facing the organization now and in the future, in addition this analysis focuses on the external environment of an organization. It examines the political, economic, social

and technological factors that may have an impact on the company and its industry. One of the advantages of this analysis is that it allows you to reveal the change direction within the organization, this helps you to shape what you are doing, so that you work with the change. Therefore, it assists in planning, marketing, organizational change initiatives, business and product development, project management and research work [14].

3. Discussion

3.1. Concept of Marketing in Dentistry

Philip Kotler defines marketing as "a social and managerial process by which individuals and groups obtain what they need and want through the creation of products and value and exchange with others." The dental marketing process includes the concept of planning and execution of dental services, establishment and management of professional fees, communication within the dental practice, and distribution of dental services to create an exchange process that meets the needs and preferences of patients.

Marketing is not just about sales either, although the two terms are often used interchangeably. Often in dentistry, the use of routine marketing is rejected because it is considered an unnecessary empirical concept and does little to promote health. Marketing can be found in private companies, health systems and, of course, dental offices. Oral health only exists when people enjoy it, enjoy the benefits, and until that happens, oral health will not benefit no one [10].

Public financing of health care provides a means to close the gap between access to health care and medical needs, providing efficiency and equity benefits. In line with this trend, public health policy seeks solutions to manage the distribution of health resources in a more market-based manner, to privatize services or to introduce "internal competition" among state-funded services. This trend coincides with or is driven by the political priorities of reduced public spending and associated tax cuts. Increased emphasis on private markets and competition. People use health care not for its intrinsic value, but for its expected health effects. To use health resources effectively, they must be used in ways that have the greatest impact on individual and population health [4].

3.2. Marketing Objectives

Dentists provide fee-for-service services to patients, and because only a small portion of dentistry is publicly funded, patients must see a dentist or dental hygienist in person to receive dental services and often seek regular checkups and preventive services aimed at preventing the patient from developing oral disease or other painful symptoms. It is the dentist's responsibility to select the appropriate treatment that meets the patient's dental needs, and these services cannot be performed en masse until the patient has been examined and specific needs have been determined. Although dentists and hygienists are well equipped to provide services, there is some uncertainty about the environment in which they work. Things can go wrong and further intervention is required, often very quickly. Because of this uncertainty, oral hygiene professionals need to acquire in-depth knowledge to enable them to respond effectively to complex and unexpected situations, which in turn requires long-term educational preparation [15].

3.3. Components of Dental Marketing

Economists have identified two major groups that make up the oral health care market.

- Demand side: patient and patient demographics, financing of care, dental needs, availability, travel, office appointments and waiting times, payment of fees, and receipt of dental services. cautious.
- Supply side: dentists and dentist demographics, hours of care and treatment, office staffing, office organization and location, clinic operating costs, dental fees, and gross revenue [15].

However, according to Bordona's study he mentions that socioeconomic determinants that were especially important for entering the dental health services system were relatively insignificant for continued service utilization because public policies regardless of the country with private fees for dentistry should improve the clarity of dental fees and insurance payments. It investigated how individual enabling resources influence their likelihood of using dental services [16] [17].

3.4. Dental market in the Austro region of Ecuador.

In Ecuador, Geoconda Cristina López Chalen (2017) implemented a "Marketing plan to increase the number of patients in the Fabricamos Sonrisa dental clinic" to select a specialist degree in the management of health establishments, with which the marketing plan was developed. to increase the number of patients in the dental clinic Fabricamos Sonrisa, for

this purpose I used a descriptive study to collect and detail the necessary information and thus describe the variables involved by conducting interviews and surveys to a sample of 257 patients belonging to the internal population (medical patients) and external residents (offices located around the sector). The study found that patients and potential patients prefer premium services supported by contracts with educational institutions to offer discounts and special services that match the current economy [18].

3.5. Marketing Strategies

All actions should be aimed at increasing consumer confidence and demonstrating that this is the best clinic to visit. The most common means of communication used by dental professionals is the "sign", with 84.2% corresponding to advertising activity, which means that the professionals are not respecting the rules established by the Federal Council of Dentistry regarding advertising and publicity [19].

However, the following are considered as strategies:

- increase the number of customers
- Increasing the value of each customer.
- Increase the frequency of purchase per customer.

Now here's how it transfers professionally to your dental practice.

- Attract new patients.
- Increase the average value for each patient.
- Reduce the time each patient has to return to the practice.

Lead Magnet: This is any type of valuable content that we give away to users in exchange for their contact information [20].

3.6. Prevalence

According to IRS - SRI data, in 2020 national sales of \$62.5147 million according to the ISIC 4.0 national economic activity classification for activity C325 Manufacture of medical and dental equipment and materials were distributed: 76.3% Specific activity C32501 Production of medical and dental equipment \$4707 . followed by C32503 Support services for the manufacture of medical and dental materials and devices (19.7%) with \$12,323,300 and C32502 Manufacture of medical and dental materials (3.9%) with \$2,466,600. Total industry sales have had an average annual variation of 9.1%, highlighting the growth of sales in the provinces of Guaya (16.6%), Pichincha (4.9%) and Azuay (1.9%), which have also experienced growth since 2019, which followed the same growth. trend until 2020 (Guayas 56.7%, Pichincha 5.2% and Azuay 11.6%). From 2010 to 2020, the fastest growth in terms of sales growth was C32501 Manufacture of medical and dental equipment (10.4%), C32503 Support services for the manufacture of medical and dental equipment and materials (70.0%) C32502 Manufacture of medical equipment and dental materials (1.3) %. In terms of provincial sales share in 2020, Guayas contributed 52.6% or \$32.9013 million, followed by Pichincha (42.1%) with \$26.3361 million and Azuay (5.2%) with \$3.2773 3.2773 million [21].

3.7. Availability

The biggest challenge with publicly funded systems is delivering provider assignment and ensuring provider commitment to the system. This means the "nationalization" of payments for services financed by the system. Terms of service, including payment levels, are negotiated between ministries and provider associations. providers. Therefore, service providers must set payments from public funds in relation to the wage rates of the system.

Public funds in relation to private system wage rates if they want to consider the public funds sector as a viable part of the private system. sector as a viable part of their operations. But the government's tight budget government budget may prevent this. In summary, policies that aim at access to health care for all are likely to contribute to the success of better health care for some. care for some. For all or nearly all of the population, an SHI approach, where medical costs are paid for with SHI funds, is likely to be more effective. medical costs are paid for with SHI funds, theoretically appears to be the best option for improving access to timely dental care for all. access to timely dental care in a sustainable manner. However, in practice, the transition to this type of However, in practice, the transition to this type of system may be limited by financial and legal constraints [15].

In contrast, targeted programs not only exclude large groups of people from the benefits of improved services, but also exclude large groups of people from the benefits of improved services. The benefits of enhanced services, but this exclusion creates a separate market that competes for time with the same providers, making access to improved services more difficult. services. to those to whom the program applies. In this way, targeted programming sows its own seeds of failure. its own seeds of failure.

3.8. Demand for Dentistry

The general theory of demand assumes that goods are the direct object of individual demand preferences (wants). Consumers' choices (purchasing decisions) are constrained by their income and service rates. Consumers' actual choices (decisions) reveal their preferences. Observed differences in choice can be explained by changes in relative prices and the economic situation of households. resources. If a person changes his or her preferences, the different preferences can be attributed to changes in the structure of individual preferences without changing prices or economic resources.

Change in the structure of individual preferences without changing prices or economic resources. If a person chooses to receive a service or purchase a good, it is because the service or good is the main object of personal choice or desire. In the case of dental services, this assumption is justified. It is difficult to believe that a person's desire to go to the dentist and receive treatment is simply the joy of the experience. Instead, it makes more sense that people see an oral health professional because they need what an oral health professional needs.

They do not treat the dentist as a job. They don't treat the dentist as a job if they don't think they need one. Medicine and dentistry in particular have models of care. In this model, health is the ultimate goal of individual desire. People choose to receive dental services because they believe they need them to maintain oral health. Oral disease and the consequent need for information, treatment and rehabilitation are the starting point for the demand for dental services. If a person does not know they need care, they are less likely to seek care. However, if a person continues to avoid professional care, the development of a disease or condition may alert the person to the need for it. Empirical studies have documented changes in the spoken language. disease model. An earlier study found that a reduction in the number and severity of oral disease changed the style and frequency of dental care [15].

In general, we can be sure that the number of professionals in our country is increasing, the quality of our work is improving the quality of our work is improving and the culture and needs of our patients are growing. and the needs of our patients are growing. However, the number of potential patients is not increasing. potential patients. Many job opportunities in our industry are not considered, possibly due to a lack of professionally managed business skills.

This suggests that young dentists seldom open new practices, possibly due to the increased competition and investment required. Dentists of all ages now need to consider which clinical business model best suits their ambitions and lifestyle.

We need to develop a strategic plan to increase the demand for dental services in our offices with the goal of creating sufficient market space for all of us to monetize our academic efforts. monetize our academic and work efforts in an ethical and efficient manner to promote their professional development [22].

3.9. Competition

The supply side of the dental market is a typical private market system with many small businesses (offices). small businesses (offices). These markets tend to be very competitive. Firms are not empowered to are not empowered to set prices at the desired level, but are largely forced to accept the prices set by the market. to a large extent forced to accept the prices set by the market. However, the supply side of the However, the supply side of the dental services market has the aforementioned characteristics. This requires dentists and dental hygienists. The institutional liability profession emphasizes professional integrity and is professional integrity and is bound by malpractice laws to protect patients from dental exploitation. patients from dental exploitation. In addition, both dentists and dental hygienists are licensed and, with few exceptions, must complete accredited courses. In many jurisdictions, continuing In many jurisdictions, continuing education is required for dental hygienists to maintain their skills after graduation [15].

In private practice it must be taken into consideration that the ability to increase the price above marginal cost is considered a loss leader. above marginal cost is considered a loss leader which involves guiding patients to more lucrative dental services with hygienic patients to more lucrative dental services with hygienist services that propose better outcomes. which those who accept the service are patients who are more likely to use the dental service,

depriving the patients more likely to use the dental service, depriving patients with supplemental insurance and deprivation insurance and lower deprivation scores [23] [24].

3.10. Factors that determine competition

- Existence of many producers and consumers, all of them small or of equal level, none of them could exert an appreciable influence on prices.
- Companies sell a homogeneous product, so that the customer or consumer is indifferent to one seller or another. indifferent to one seller or another.
- Companies and consumers have complete and free information. All consumers consumers have the same information about the characteristics of prices and quantities of goods on offer. quantities of goods on offer.
- Technology is available to all companies.
- There are no barriers to market entry or exit. This scenario, if it were to occur, would would greatly simplify management and remove the need for strategic plans, marketing actions, etc., even though it is clear that it is currently "in the hands of the market", although it is clear that at present this "perfect competition" is a fantasy.

In order to meet the health needs of the population, it is necessary to define a regulatory mechanism for transactions (exchanges) between claimants and health service providers. Markets and planning are two pure forms of allocating resources. In a market system where prices provide the right information and incentives, the interaction of supply and demand determines what services will be provided and who will receive them. Another option is planning, in which the government, through health authorities, identifies medical services and regulates the process of access to them. The care centers offered provide a variety of accommodations, interventions, counseling, diagnostic testing and more, counseling, diagnostic testing and more. Improving the health of the population served. The Efficiency can be measured by comparing the contributions of care resources to the goals that reflect the use of the resources. objectives that reflect the use of the resources. On the other hand, we can define the effectiveness of a given care process as a possibility for an individual. This efficiency is usually determined experimentally and has general validity.

On the other hand, effectiveness also attempts to measure the probability that an individual in a given population will benefit from the application of a treatment. Thus, efficiency determines the upper limit of the benefits of healthcare activities, while effectiveness manifests itself in actual practice, in the form of the use of medical knowledge. The quality of health care can be defined as the difference between efficiency and effectiveness achieved in the use of health care resources.

The concept of demand in economic terms is considered to be the willingness to pay for a good or service that satisfies a need or desire. Logically, the greater the desire for afor a given product or service, the greater the willingness to pay more, and vice versa. While it is true that this decision is influenced by the prices of other identical, similar or substitute goods that motivate the desire, this means that when it comes to paying, other variables such as preferences or personal taste must also be considered. The collection of these variables form what is called a demand function in economic analysis.

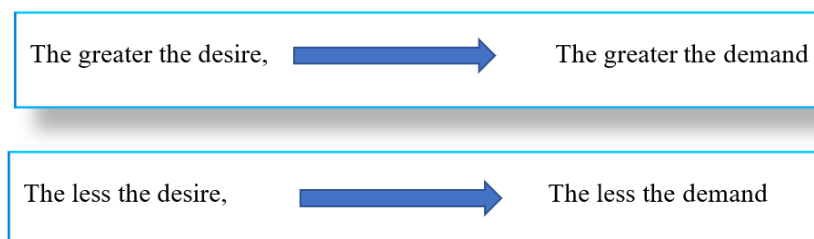


Figure 1 Demand function [18].

3.11. Responsiveness of demand for dental services to changes in fees

The sensitivity of market participants to price or income changes in purchasing and production decisions is what economists call "elasticity." It is usually measured as a percentage; for example, you may see a 10% price change.

If the percentage change in quantity is greater than the percentage change in price, the good is price elastic; if it is less, the product is inelastic. These factors measure the percentage change in the quantity demanded (buy) or supplied (sell)

for a given percentage change in the price (tariff) of the product. If the demand for dental services is extremely elastic, even small changes in price (the cost of dental care) can have a significant effect on the quantity of dental care demanded.

Even a small increase in prices can lead to a sharp decrease in the use of services. At the other extreme, the price elasticity of dental services can be very inelastic. In this case, the price increase has little effect on the demand for dental services. The elasticity of demand for total dental services falls between these two extremes and varies depending on the type of procedure. A demand curve with

Downsloping means that people value dental services enough to buy them even when costs rise. Demand means that when the interest rate increases by 10%, the quantity demanded decreases by less than 10% [22].

3.12. Innovation in health

The last few decades have seen unprecedented change and technological innovation in healthcare. Therefore, there is a need to invest in technologies that can increase control and improve the quality of care. However, technology requires the training of professionals who use it to turn this resource into a channel and not an end in itself. For effective innovation, all the connections must be in place and work properly with each other. WHO information and communication technology (ICT) facilitates expert meetings, assists in diagnosis and provides opportunities for continuing education, increasing health team satisfaction. In addition, they shorten the distance between specialists and patients, which reduces the waiting time for transport, which means more efficiency in the processes and lower costs [25].

3.13. Marketing actions

One of the first marketing tasks carried out by dentists is to analyze the offers offered to the population, which can be divided into three groups: prevention, treatment and rehabilitation. From a geographic perspective, marketing and dental clinics

As micro-businesses, dental health marketing is simply accessible. Today's dentists should not stop using these tools, which will also increase competitiveness in the changing social field [15]. Dentistry was one of the last so-called independent professions to suffer from an increasingly tight job market, with the urban specialist market saturated and work in rural or sparsely populated areas seemingly unattractive. Drastic changes in the production environment at the turn of the millennium changed not only technology, but

also human resources management strategies, which resulted in the appearance of new socio-professional profiles. Simple solutions will be beneficial to all parties, even if the options are self-created without knowing the available options, then consumers choose what they can afford [26].

3.14. Pricing Policy

It is the company's policy to set prices based on a minimum table of fees managed by the Azuay College of Dentists, of which the company must be a member, in order to cover the expected segment and meet the expectations of the customers.

3.14.1. customers.

- It is the company's policy to set special prices and the discount percentage for certain affiliates, based on the agreements agreed with public or private entities (educational institutions, companies, insurance).
- It is company policy to determine the monthly cost of a package of dental privileges per family and to determine the limit number of members, in the case of agreements with educational institutions.
- It is the company's policy to have a financing system, establishing forms of payment in cash, and by installments through checks or bills of exchange.
- In case of prolonged treatments, the patient will review the contract, a document will be signed, the delivery of an entry value will be agreed and the remaining balance of the treatment is distributed in installments of 3 to 6 months.
- Once a credit card payment system is implemented, the patient will pay the value of the treatment plus the percentage of commission (8%), that is, they will absorb the commission from their respective credit card [27].

3.15. Competitive pricing

When presented with the offer of a competitive price in other treatments, we must react through marketing strategies that allow us to charge appropriately for our services since they are of quality and with time the good results can be felt and noticed, give them added to our services so that we can offer the client more than what was promised and make up for the threat of a competitive price with constant innovation [27].

3.16. Current events in the marketing of dentistry

Today in dentistry there are platforms that provide us with individualized diagnosis quickly where artificial intelligence AI is used. Patients will be able to easily see treatment recommendations, along with costs, risks and which dentist offers the best outcome for that treatment [28].

3.17. AI Marketing

Artificial Intelligence (AI) marketing includes predictive analytics, machine learning, feedback and control systems, natural language processing, and other proprietary algorithms in which software is of great help.¹⁸

Artificial intelligence is a new form of marketing that works with minimal human input. AI marketing solutions are autonomous, interactive, unassisted digital marketing using multivariate test results and deep analytics to make better decisions in the future, suppliers and resources can be easily verified [28].

In the study by Romero J. The present research corresponds to one of the first studies that reports the working conditions, financial, expectations and degree of satisfaction in dentists in the private sector, in light of the available literature in Colombia. With respect to reported job satisfaction, more than half of the respondents (55.1%) were satisfied. Although this result could indicate that there are more dentists with good job satisfaction, there is a difference with what was found in the study by Goetz, in Germany, where the great majority of the participants (95%) claimed to have a high level of job satisfaction. When this job satisfaction is related to sociodemographic characteristics, differences are found with respect to the distribution of men and women (66.67% men and 40.43% women). As reported by Decharat et al. in Thailand, who report lower satisfaction of the female sex in their study, compared to the male sex. It is likely that this study reflects that women tend to be more understanding or tolerant of working conditions, since throughout history it has been seen that in the past women did not work and the mere fact of doing so makes them feel included and accepted in society as people capable of contributing to society [29].

According to Pinto's study conducted in Quito - Ecuador, the analysis of the environment for the development of the dental market, it is conclusive that the market has a strong concentration in the north-central area of Quito, due to its high commercial movement, which influences the location of this type of business in this sector, This aspect should not be considered an obstacle to carry out the enterprise, on the contrary, it should encourage to compete in a competitive and mature market, constantly looking at the needs and behavior of users, to offer a service that is attached to what the potential customer is looking for [30].

In recent years, Ecuador has seen an increase in the number of professionals in the area of dentistry, hence the imperative need in this sector to apply marketing strategies and techniques for the creation of an attractive and relevant personal brand that contributes to occupy a preferential place in the minds of consumers and stand out from the competition "[30].

The application of strategies and techniques to promote and enhance the growth of a personal brand, is evident of a personal brand was evidenced in this study as an opportunity to generate greater engagement with the target public and contribute to the positioning of the oral health professional in the local market. Therefore, it is essential to continuously direct efforts to get to know clients in depth. In this sense, the use of ICTs and social networks is of value for the creation of relationships, contact and communication with them. It was also recognized that users are not only influenced by the price variable when choosing a dental service, since elements such as the experience before, during and after the appointment as well as having facilities and/or amenities to access the service (x-rays nearby, parking and payment methods) were found to be of value for the subjects [30] [31].

In a study carried out in the city of Guayaquil, of the total sample of users of the office in Guayaquil, in the southern sector of Cristo del Consuelo, 50 patients (100%) found out exclusively through the recommendations of a friend, and no client by other means of communication, maintaining an archaic system in terms of promotion and advertising of the services offered. Regarding the comfort of the waiting room, we found that, of the total sample of 50 users studied, 42 found it comfortable (84%) and only 8 users stated that it was not comfortable (16%).

As for the type of treatment during the attention received by the operator, 28 patients said it was good (56%), followed by 12 patients who said it was excellent (24%), in third place were 6 patients who said it was fair (12%) and finally 4 patients who rated it as bad (8%) (32) (33).

In Barboza's study This study shows the dynamics and evolution of professionals incorporated to the College of Dental Surgeons of Costa Rica from 1951 to 2017. It is generally observed an increasing behavior of the number of professionals in Dentistry that were incorporated from 1951 to 2017, being the decade of 1990, the one that shows the most important quantitative jump. This historical moment intersects with the advent of private universities in the country. This on the one hand has caused an increase in tension in terms of supply and demand of dental services, with an availability of 11 dentists for every 10,000 inhabitants, which exceeds the minimum recommendations by more than three times [34]. This represents a quantitative advantage that could be enhanced in terms of public health, if there were a vision of human resources development programmed and in accordance with the needs of the population. Article 24 A study commissioned by the College of Dental Surgeons of Costa Rica in 2011 mentions that there is an overpopulation of dentists in relation to the number of inhabitants of the country. However, this reason does not justify the number of dental professionals to carry out a structured oral health program based on the evidence and epidemiological needs of the populations. As mentioned above, the WHO sets a basic minimum number of dental professionals. This should not be used as a "maximum" or a ceiling. Each country should make a study on the existing oral health needs to calculate the number of professionals required to meet these health priorities, considering the characteristics of its population and its social, economic and political context [34].

In Cruz P.'s study, 48% of the graduates are competent in research in their work performance and 57% in entering the academic environment and teaching a university professorship. Regarding the work performance of the graduates, 94% work as specialists; 65% work 40 hours or more per week; 45% earn more than 30 thousand pesos per month; 52% work in a public institution and 55% work individually in private practice. Regarding oral health services in with regard to oral health services in Nuevo Leon, the population with social security has 48 health centers that provide dental services, which have 85 dental units and 170 dentists; Annex 5 shows the health centers by municipality. In the case of an emergency (unbearable pain), they are attended at that moment [35].

4. Results

A study was carried out by means of surveys in 9 clinics in the city of Cuenca in the province of Azuay - Ecuador, and the following was obtained

4.1. Dental Pro Clinic

In this clinic the owners have heard about dental marketing, they advertise through social networks, which seems to be a functional didactic, but they want to change it in response to customers.

4.2. Healthy Teeth Clinic

In this clinic the owners if they have heard about dental marketing, they offer their services in the dental clinic through social networks and according to their criteria it is functional and its operation is based on market feedback.

4.3. Smile Dental Clinic

This clinic if they have heard about dental marketing promotes their services through social networks and recommendations, according to their criteria it is functional and its operation is based on return on investment.

4.4. Mc Dental Clinic

The owner of the establishment provides us with information that, if it has heard about dental marketing and promotes its services through social networks and recommendations, according to its criteria it is functional and its operation is based on market reaction and return on investment.

4.5. Dent Center Clinic

The owner of the establishment provides us with information that, if he has heard about dental marketing and promotes its services through social networks, recommendations and the delivery of Flyers according to his criteria is functional and its operation is based on market reaction and level of revenue.

4.6. MaCDent Calderon Clinic

The owner of the establishment provides us with information that, if it has heard about dental marketing and promotes its services through social networks recommendations, Flyers according to its criteria is functional and its performance is based on the level of revenue.

4.7. SonriSalud Clinic

In this clinic the owner has heard about dental marketing, they advertise through social networks because it seems to them a functional didactic, but they want to change it in response to customers.

4.8. BMDental Clinic

In this clinic the owner has heard about dental marketing, they advertise through social networks, according to their criteria it is functional and its operation is based on the market reaction and the level of income.

4.9. Dantis Dental Clinic

In this clinic the owner has heard about dental marketing, they advertise through social networks and according to her criteria it is functional and its operation is based on market reaction.

5. Conclusions

Although marketing in dentistry in terms of advertising can help patients to understand the treatments available, the main objective of marketing covers the various methods for a dental office or clinic to achieve its objectives in terms of profitability, which is strictly linked to maintaining the oral health of patients, taking into account that the increase in competition in the market is continually growing, therefore it is necessary to establish different guidelines to be able to counteract it, Among them is digital marketing, which is one of the fastest growing resources used among the nine professionals interviewed, who through websites and social networks carried out advertising and promotion, obtaining as the greatest result of the four points evaluated a higher level of financial income and the reaction of patients, obtaining new patients as a result, This means that within the dental market of Ecuador, the different professionals are aware of the methods used in marketing; however, this does not mean that in the future they will maintain the same results because marketing in dentistry is constantly changing and the need to renew the strategies becomes a constant necessity in order to be successful in such a competitive area.

Recommendations

We recommend that countries establish national systems capable of monitoring disease and human resources as well as the effectiveness of their oral health care delivery systems.

Compliance with ethical standards

Disclosure of conflict of interest

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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APPENDICES

Informed consent for data collection

Name of the dental clinic:.....

I..... identified with the ID number declare that I have been invited to participate in the descriptive study of the dental market in the Austro del Ecuador, which has as its main objective to gather quantifiable information at the level of dental marketing planning present in the dental market in the Austro del Ecuador, in order to achieve the satisfaction of both our patients and all components of our profession: institutions, industry and professionals.

Responsible for the research: Gabriela Álvarez, Katusca Rodríguez and Wendy Marca.

SURVEY

Mark with an "X" in the answer you think is appropriate (one option):

1. Have you listened to the topic of dental marketing?

SI NO

2. How do you promote your services in the dental clinic?

Social networks Recommendations Flyers Radio Television Other

3. In your opinion, is it functional?

SI NO

4. If your answer is "No", would you change it?

SI NO

5. How does it work?

Return on investment Revenue level Customer response Market reaction

Firm