

ETHICAL AND DEONTOLOGICAL CONSIDERATIONS ON MARKETING STRATEGIES IN DENTAL MEDICINE

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I. INTRODUCTION

Recent transformations in the field of health services, marked by digitalization and increasing competition in the private sector, have led to a significant expansion in the use of marketing strategies in dental medicine. In this context, marketing no longer represents merely a promotional tool, but is becoming an integrated component of professional communication and the dentist–patient relationship [1,2].

In dental practice, marketing may include the presentation of the technological advantages of the dental office, as well as patient education activities regarding prevention and oral hygiene. Thus, it may contribute to increasing oral health awareness and reducing the anxiety associated with dental treatments [4].

However, the use of marketing strategies in the medical field raises specific ethical concerns. Unlike commercial marketing, medical marketing must respect fundamental principles such as beneficence, non-maleficence, and respect for patient autonomy [3]. Communication

In the context of the accelerated development of the private sector and the digitalization of medical services, marketing in dental medicine has become an essential component of professional practice. The present study analyzes the marketing strategies used by dentists in Romania and evaluates their degree of compliance with ethical and deontological principles. The methodology consisted of administering a standardized questionnaire to a sample of 45 dentists. The results highlight the predominant use of social media (84.4%), limited involvement in complex marketing strategies, and a high level of awareness of ethical norms, with most respondents considering the exaggeration of treatment benefits to be unethical (91.1%). Furthermore, 93.3% of participants support the need for continuous ethical training. The conclusions emphasize the need to strengthen the regulatory framework and ethical education in the context of the digital transformations affecting dental practice.

Keywords: dental marketing, medical ethics, deontology, medical advertising

must be truthful, balanced, and must not mislead the patient [4,5,6,7].

The development of the digital environment has amplified these challenges, since social networks and online platforms allow for the rapid and widespread dissemination of information, but also for the emergence of practices that are ethically questionable [2,5,9].

In this context, analyzing the relationship between marketing and ethics in dentistry becomes essential for understanding current practices and for developing appropriate regulatory directions [4,5,7,8].

II. AIM AND OBJECTIVES

The aim of the study is to evaluate the interaction between marketing strategies used in dental medicine and the ethical principles governing professional practice [3,4,7].

The general objective is to critically analyze marketing strategies from the perspective of ethical compliance.

The specific objectives include:

- identifying the marketing methods used;
- evaluating dentists' perceptions of ethical limits;
- analyzing the level of knowledge regarding regulations on medical advertising;
- identifying practices considered unethical [4,5,6,7,8].

III. METHODOLOGY

The study employed a quantitative approach based on the administration of a standardized, self-administered questionnaire composed of three sections:

- demographic data: age, gender, years of experience, type of practice, and rural or urban location;
- marketing practices and channels used: online presence, types of promotion applied, collaborations with marketing agencies;
- perception of ethical and deontological aspects: closed-ended questions and Likert-scale items →

regarding the acceptability of certain forms of advertising, knowledge of the ethical framework, assessment of risks related to the image of the profession, and the need for additional regulations.

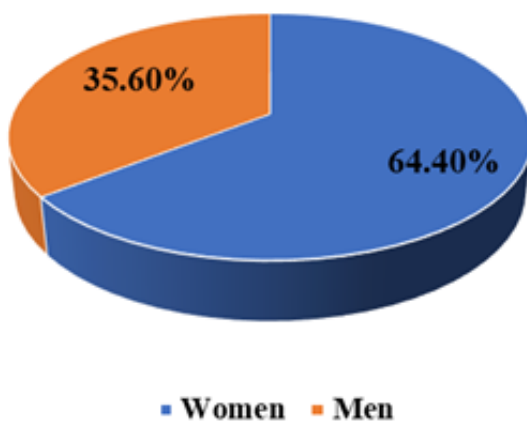
The questionnaire was drafted in accordance with the principles of clarity, neutrality, and relevance and was pretested on a small sample to validate item comprehensibility. The sample consisted of 45 dentists practicing in Romania, selected through convenience sampling. Participation was voluntary and anonymous. No personal data allowing the direct identification of participants were collected. Statistical analysis was carried out using Excel and SPSS, applying descriptive statistical methods and simple correlations between demographic variables and ethical perceptions.

IV. RESULTS

Distribution by biological sex

Of the 45 participants, 29 were women (64.4%) and 16 were men (35.6%). This distribution reflects the predominance of the female gender in the analyzed sample. (Figure 1)

Figure 1 – Distribution of participants by biological sex



The distribution of participants by age group reveals a predominance of dentists in the stage of professional maturity. The largest category was represented by the 40–49 age group, with 18 respondents (40.0%), followed by the 30–39 age group, with 10 participants (22.2%). A percentage of 20.0% was attributed to dentists aged 50–59 years. The age groups at the extremes of the interval were equally represented: 8.9% of respondents were under 30 years old, and 8.9% were over 60 years old. (Figure 2)

The analysis of professional experience distribution shows that most respondents were practitioners with substantial experience. The best represented category was that of dentists with 11–20 years of experience, totaling 21 participants (46.7%). This was followed by dentists with more than 20 years of experience, representing 28.9% of respondents. Dentists with 5–10 years of experience were represented by 7 participants (15.6%), while 4 participants (8.9%) reported fewer than 5 years of professional experience. (Figure 3)

The statistical analysis of the relationship between age and professional experience revealed a very strong positive

Figure 2 – Distribution of participants by age group

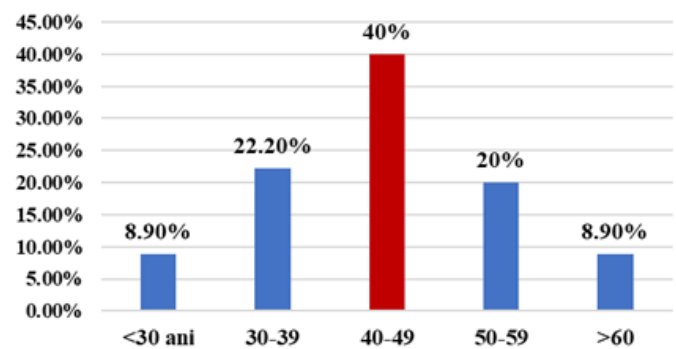
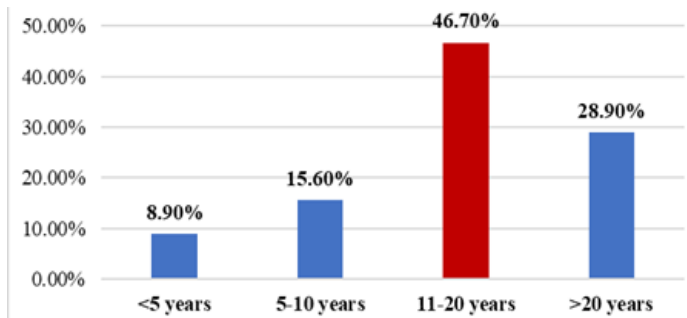


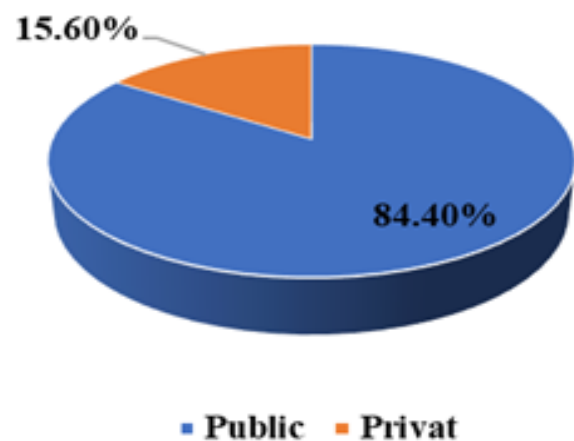
Figure 3 – Distribution of participants according to professional experience



correlation, confirmed by the Spearman coefficient $\rho = 0.95$ and an extremely low p-value. This correlation suggests that, within the studied sample, age is a direct predictor of seniority in the profession, which is consistent with the logic of career progression in dental medicine.

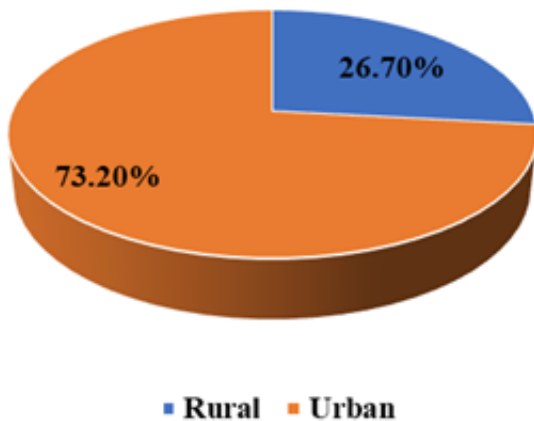
The distribution of participants according to the organizational form of medical activity shows a clear predominance of the private sector. Thus, 38 of the 45 respondents practice in private dental offices (84.4%), while only 7 participants (15.6%) work in public dental units. (Figure 4)

Figure 4 – Distribution of participants according to the type of medical practice



Another important dimension analyzed was the geographical location of dental offices. The collected data indicate a significant predominance of practices located in urban areas, where 33 respondents (73.3%) carry

Figure 5 – Distribution of participants according to the environment in which they carry out medical activity



out their activity. Only 12 respondents (26.7%) practice in rural areas. (Figure 5)

To verify whether there was a significant association between the type of dental office and its location, the chi-square test for independence was applied. The result obtained was $\text{Chi}^2 = 0.0$, with $p = 1.0$, indicating the absence of a statistically significant correlation between the two variables.

Likewise, to verify whether there was a significant association between the level of professional experience and the organizational form of the office in which dentists practice, the chi-square test for independence was applied. The results obtained ($\text{Chi}^2 = 3.76$, $p = 0.288$) indicate the absence of a statistically significant correlation between the two variables.

Marketing methods used in dental offices

The research assessed the adoption of five distinct methods for promoting dental services: the use of printed materials, online presence through websites, activity on social networks, paid online advertising, and involvement in oral health education campaigns. These categories are consistent with the established models in the literature on services marketing and health services marketing [1,2].

1. Flyers, brochures, and printed materials

The questionnaire results show that most respondents (80.0%) use traditional printed materials to promote the dental services they offer. More specifically, 36 out of the 45 dentists included in the sample stated that they carry out such promotional activities, while only 9 respondents (20.0%) do not resort to such practices. (Figure 6)

2. Own website

Only 4 respondents (8.9%) stated that they have their own office website. This low rate suggests either a lack of interest in building an official online presence or limited access to the resources needed to develop a professional website. (Figure 7)

Figure 6 – Use of flyers, brochures, or printed materials

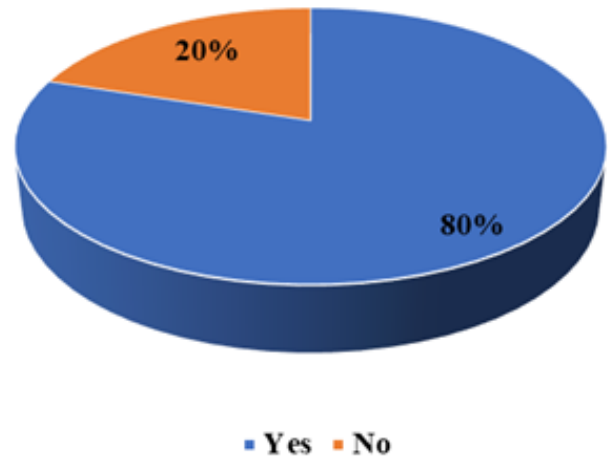
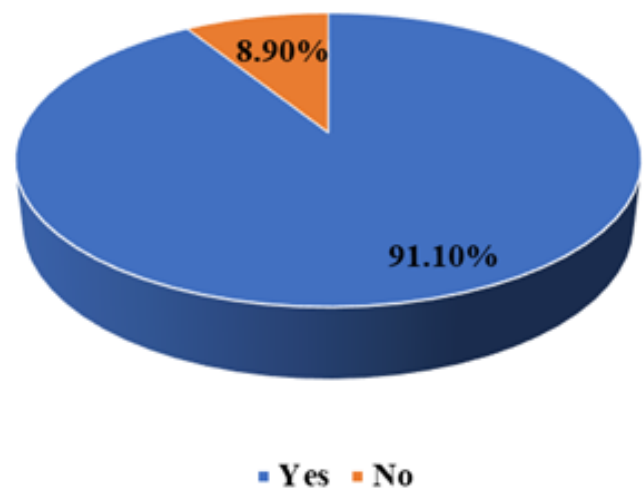


Figure 7 – Percentage of respondents who have their own website



3. Active social media pages

Social networks constitute the most widely used promotional channel, being mentioned by 38 respondents (84.4%). This result confirms that social media is perceived as an efficient, accessible, and interactive tool for communicating with patients, a trend supported by the literature on the digitalization of services and medical communication [2,9]. (Figure 8)

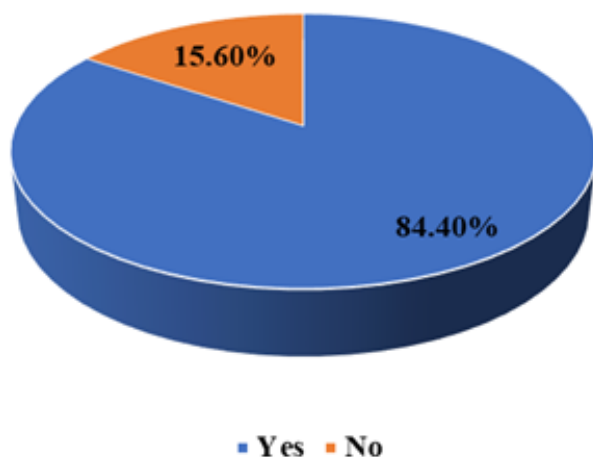
4. Google Ads and other paid online advertisements

Research shows that this method is used mostly by larger offices or those collaborating with specialized agencies. Although the potential is high, it also involves an increased risk of sliding toward aggressive or unethical forms of promotion, which justifies the importance of clear regulation [5,7,8].

5. Oral health education campaigns

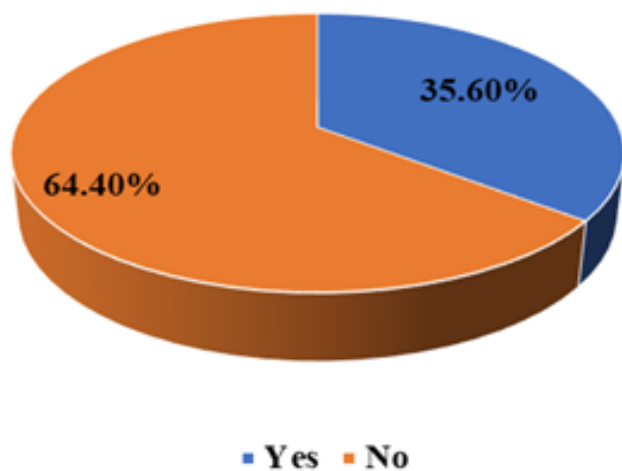
One third of participants, namely 16 dentists (35.6%), indicated that they conduct oral health education

Figura nr. 8 – Procentul de respondenți care folosesc rețele sociale



campaigns. From an ethical perspective, this practice is one of the most valuable forms of marketing, as it simultaneously serves the public interest and professional visibility [4]. (Figure 9)

Figure 9 – Percentage of respondents participating in oral health education campaigns



The questionnaire results show that only 4 out of the 45 respondents (8.9%) declared a *collaboration with a specialized marketing agency*. By contrast, 41 respondents (91.1%) do not resort to such collaboration. From an ethical perspective, collaboration with a marketing agency may raise additional concerns: outsourcing communication risks leading to messages that do not reflect clinical reality or that violate deontological regulations [5-8]. For this reason, the dentist remains responsible for the content and tone of promotional materials, regardless of whether they are developed internally or by third parties [4,6,7]. (Figure 10)

To assess the degree of dentists' involvement in complex and diversified promotional activities, the *five essential marketing practices* were aggregated into a single composite indicator called "*marketing maximization*." This indicator reflects the number of promotional strategies used by each respondent and provides a clear picture of the level of engagement in professional communication. (Figure 11)

Figure 10 – Number of respondents who use the services of advertising companies

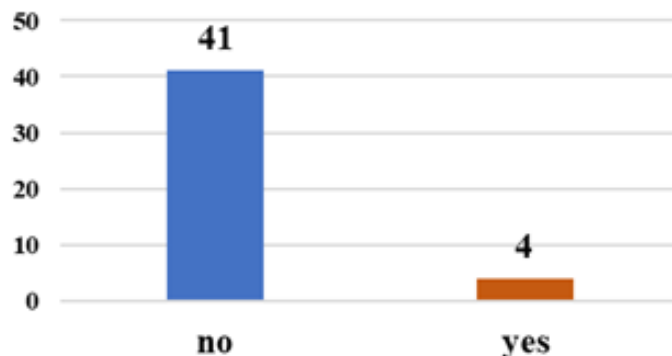
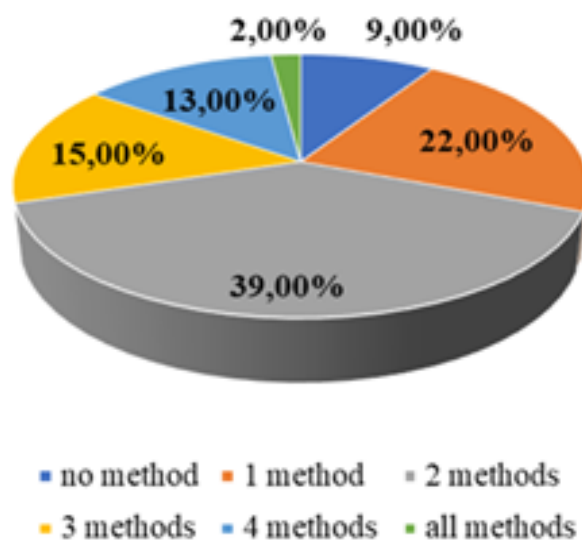


Figure 11 – Measuring the tendency to maximize marketing practices by summing the methods used

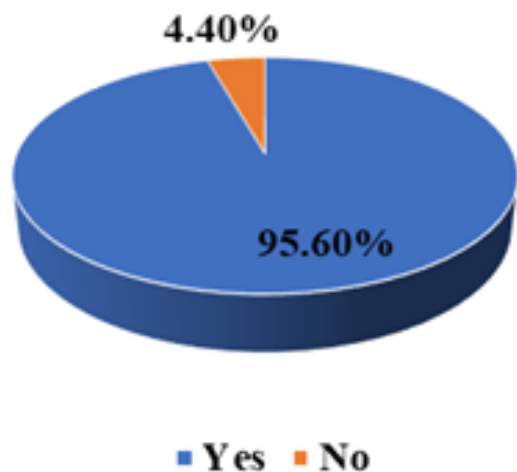


This distribution shows that, although most dentists are aware of the importance of marketing, its actual maximization is limited by factors such as digital literacy, geographical location, length of professional experience, or financial constraints. From an ethical perspective, dentists who maximize marketing also bear greater responsibility to respect the principles of honesty, informational balance, and professional dignity [3-7].

Perception of the necessity of marketing in dental medicine

Medical marketing, especially in the field of dental services, has become an important component of modern practice. Beyond simply attracting patients, it involves clear, educational, and ethical communication that may positively influence oral health behaviors [1,3,4]. In the study, respondents were asked whether they consider marketing to be a necessary element for the development of a dental office. An overwhelming majority of respondents, 43 out of 45 (95.6%), consider marketing necessary. (Figure 12)

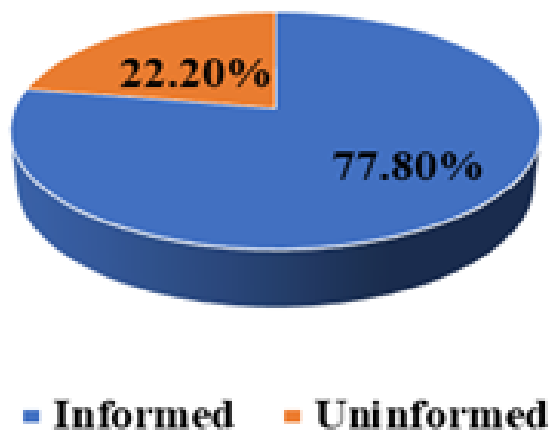
Figure 12 – Distribution of responses regarding the perception of the necessity of marketing in dental medicine



Knowledge of legislation regarding advertising in dental medicine

Compliance with the legal framework regulating the advertising of medical services represents an essential pillar of ethical and responsible dental practice [6-8]. According to the obtained data, 35 respondents (77.8%) declared that they are informed about the legal regulations concerning advertising in dentistry. However, 10 respondents (22.2%) acknowledged that they do not know these regulations. (Figure 13)

Figure 13 – Distribution of responses regarding knowledge of medical advertising legislation among dentists

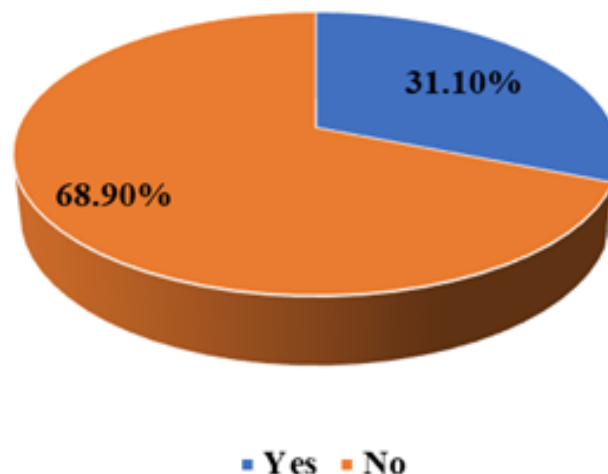


Marketing in dentistry should follow the same rules as in other commercial fields

The study included a question designed to assess the extent to which respondents consider that marketing in dentistry may be similar to that applied in other commercial fields. The collected data reveal a significant diversity of opinions. Approximately one third of respondents, 14 out of 45 (31.1%), believe that medical marketing may be similar to that applied in other commercial fields. In contrast, 31 respondents (68.9%) do not agree with this equivalence, implicitly supporting the idea that medical marketing

must be governed by specific rules imposed by the vocational, ethical, and humanistic nature of the medical act [3,4,6,7]. (Figure 14)

Figure 14 – Measuring the perception that marketing in dentistry may be similar to that applied in other commercial fields



Perception of exaggerating benefits as an unethical practice

In the sphere of medical marketing, respect for truth in communication with the patient is an essential requirement with profound ethical implications. Exaggerating treatment benefits, making unfounded promises, or using hyperbolic formulations constitute not only questionable practices but also potential sources of misinformation and emotional manipulation [3,4,5,6,7]. In the study, dentists were asked whether they perceive exaggerating benefits as an unethical practice. The results are eloquent: 41 out of the 45 respondents (91.1%) consider such statements unethical.

Clarity of the deontological framework regarding medical advertising

A central aspect in the ethical application of marketing strategies in dental medicine is the existence of a clear normative framework that is easy for professionals to interpret. Ethical guidelines and professional codes contain provisions regarding public communication and the acceptable limits of promotion [4,6,7]. According to the responses obtained, 31 respondents (68.9%) consider that the current framework provides clear guidelines regarding the advertising of dental services, while 14 respondents (31.1%) do not agree with this statement. Normative clarity is essential for preventing mistakes and strengthening the moral authority of the profession [3,4,7]. (Figure 15)

Influence of advertising on professional image in dentistry

The public image of the dentist is an essential factor in maintaining patient trust, affirming professional competence, and differentiating within the medical market [4,5,6,7]. The results indicate a significant majority: 37 out of 45 respondents (82.2%) agree that advertising affects the image of the dentist. (Figure 16)

Figure 15 – Perception that the deontological framework contains clear provisions

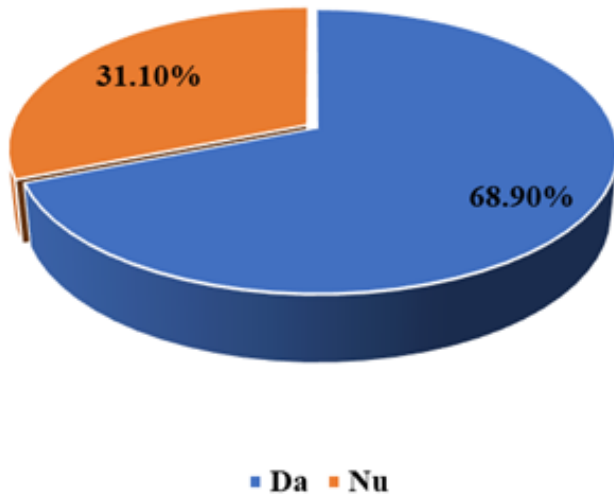
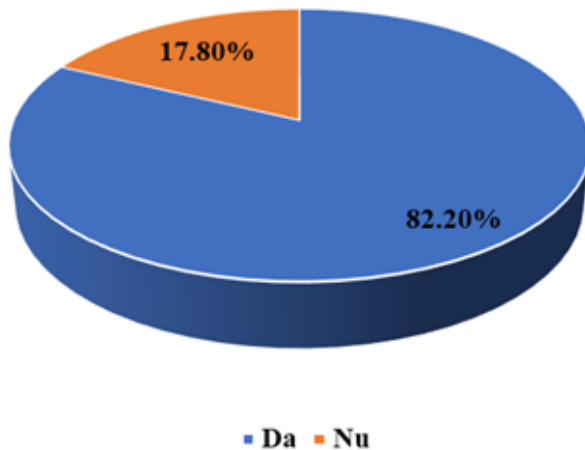


Figure 16 – Perception that advertising influences professional image



Unethical practices in the promotion of dental services

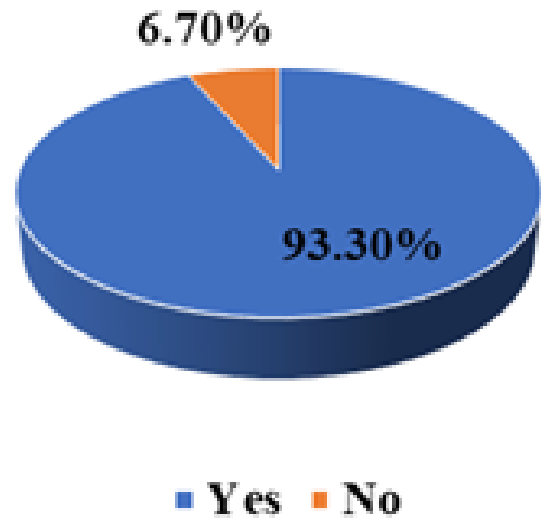
The results are significant: 11 out of the 45 respondents (24.4%) state that they have observed unethical practices in the promotion of services in the field. These behaviors may include exaggeration of results, the use of false reviews, aggressive or manipulative messages, as well as reliance on commercial tactics not permitted by deontological codes [5,6,7,8]. Overall, these data highlight the need for proactive measures on the part of professional organizations to clarify norms and sanction possible deviations.

In the study, respondents who declared that they had observed unethical practices were given the opportunity to describe them freely. Among these mentions, the only concrete and recurrent formulation was “exaggerations in online advertisements.” These types of messages are contrary to the principle of truthfulness and professional honesty, as well as to the explicit provisions of ethical guidelines [3,4,5,6,7]. The presence of such practices in the digital environment is all the more problematic because social networks and search engines offer a space of high visibility, yet insufficient control [2,9].

Perception of the need for continuous ethical training in dentistry

In a professional landscape marked by rapid changes in the promotion of medical services, continuous ethical training becomes an indispensable instrument for maintaining the balance between economic performance and the moral responsibility of the profession [4,7]. Respondents were asked whether they consider continuous ethical training necessary. The results show almost unanimous support: 42 out of 45 respondents (93.3%) state that such training is necessary. (Figure 17)

Figure 17 – Agreement regarding the need for continuous training in ethics in dentistry



In a professional context marked by rapid transformations, accelerated technologization, and increasing economic pressures, continuous ethical training becomes an essential component of responsible dental practice [3,4,7]. New promotional tools—social media, digital platforms, and advertising campaigns—create real opportunities, but also major ethical risks, such as unrealistic promises, unfair competition, emotional manipulation, and the excessive commercialization of the medical act [2,5,9].

V. DISCUSSIONS

The results of the study highlight the increasingly strong integration of marketing into modern dental practice, especially in the context of the development of the private sector and the digitalization of medical services. Marketing is no longer perceived exclusively as a promotional tool, but as a strategic component of dental office management, contributing to professional visibility and patient attraction [1,2]. However, the obtained data also emphasize the need to maintain a balance between economic objectives and professional responsibility, in accordance with the fundamental principles of medical ethics [3].

The high degree of awareness among dentists regarding the unethical character of exaggerating treatment benefits (91.1%) reflects the internalization of the principles of truthfulness, beneficence, and respect for patient autonomy. These results are consistent with the specialized literature, which emphasizes that distorted

or hyperbolic information may affect the patient's ability to make informed decisions and may undermine the dentist–patient trust relationship [3,5]. In this regard, medical communication must remain grounded in clinical reality and avoid any form of emotional manipulation.

Another relevant result is represented by divergent perceptions regarding the clarity of the deontological framework. Although most respondents consider that sufficient normative benchmarks exist, a significant proportion report ambiguity, especially in the context of digital communication. This aspect confirms the conclusions of European analyses showing that existing regulations are not always adapted to new forms of online advertising and communication on social media [7,8]. Consequently, there is a need to update and clarify deontological guidelines so that they provide applicable standards in the digital environment.

The predominant use of social networks (84.4%) confirms trends identified internationally regarding the digitalization of communication in healthcare [2,9]. This channel offers significant opportunities for interaction and patient education, but it also involves important ethical risks, such as the dissemination of incomplete information, excessive promotion, or the use of persuasive strategies that may unduly influence patient behavior. In this context, the professional responsibility of the dentist is not diminished by the digital environment; on the contrary, it becomes more complex.

The low level of use of advanced marketing instruments, such as proprietary websites or collaboration with specialized agencies, suggests the existence of barriers related to resources, digital competences, or perceptions of ethical risks. This situation points to a still uneven development of dental marketing in Romania and highlights the need for educational and institutional interventions.

Furthermore, the relatively low proportion of respondents who reported observing unethical practices (24.4%) may have two interpretations: either such practices are less frequent than the literature suggests, or there is underreporting due to the normalization of questionable behaviors. The literature indicates that the digital environment favors the emergence of such practices, particularly in the absence of effective control mechanisms [5,8,9].

Finally, the almost unanimous support for continuous ethical training (93.3%) represents an important indicator of professional maturity. It reflects the awareness that technological developments and economic pressures require a constant updating of ethical and communication competences [4,7]. Continuous training may significantly contribute to preventing deviations and to consolidating a professional culture based on integrity and responsibility.

VI. CONCLUSIONS

Dental marketing currently represents an indispensable component of professional practice in the context of a competitive medical market and accelerated digital transformations. However, the use of marketing strategies must remain permanently correlated with the fundamental values of medical ethics, especially respect for patient autonomy, truthfulness of information, and professional responsibility [3,4].

The study results indicate a high level of awareness among dentists regarding the importance of ethics in professional communication. Most respondents recognize the necessity of marketing, while at the same time identifying clear limits concerning the acceptability of certain practices, especially those involving the exaggeration of benefits or the manipulation of information. This balance between openness to marketing and concern for ethics represents a positive element and suggests a mature evolution of the profession.

Nevertheless, the results also highlight the existence of gaps, particularly with regard to the clarity and applicability of the normative framework in the digital environment. In this sense, existing regulations need to be strengthened and updated so as to respond adequately to new forms of communication and promotion [7,8]. At the same time, it is important to develop practical guidelines offering concrete examples of good practices and ethical boundaries.

Another essential aspect is the need to develop continuous ethical training programs. These should include not only general principles, but also applied situations specific to digital marketing, in order to support dentists in managing ethical dilemmas arising in daily practice [4,7].

Looking ahead, medical marketing should evolve beyond its commercial dimension and become an instrument of patient information, education, and empowerment. Such an approach may contribute to strengthening trust in the medical profession and to maintaining the integrity of the therapeutic act [1,3,4].

In conclusion, the integration of marketing into dental medicine is increasingly evident, yet the success of this integration depends on the ability of professionals to maintain a balance between communication efficiency and respect for ethical values. Strengthening the normative framework, developing continuous training, and promoting a culture of professional responsibility represent essential directions for sustainable and ethical dental practice.

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