# Ethical Behavior of Dentists and Oral Health Specialists in Electronic Social Networks: Publication of Photographs of Clinical Cases \*

Comportamiento ético de odontólogos y especialistas de la salud oral en redes sociales electrónicas: Publicación de fotografías de casos clínicos

Comportamento ético de dentistas e especialistas em saúde bucal em redes sociais eletrônicas: Publicação de fotografias de casos clínicos

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## **ABSTRACT**

**Background**: the use of electronic social networks (ESN) enables healthcare professionals to establish relationships through electronic devices, transforming social practices. Facebook, Twitter, and Instagram are platforms whose behavior patterns favor the exchange of professional information, which is classified as inappropriate conduct compromising professionalism and ethics, violating the privacy and confidentiality of patients. **Purpose:** to assess the ethical behavior on ESN of dentists and oral health specialists regarding the publication of clinical case photographs. **Methods:** a descriptive observational study evaluated the ethical behavior on ESN of dentists and oral health specialists regarding the publication of clinical case photographs. A structured survey was conducted to gather information about the use of Facebook, Twitter, and Instagram. A p-value < 0.05 was considered statistically significant. **Results:** out of 127 participants, 60 % publish photographs of clinical cases on their ESN without knowledge of any ethical protocol. 18.11 % have read the Code of Ethics of the Colombian Dentist, and 18 % have read the internal policies of ESN. 7 % do not believe they are committing any ethical breach when publishing photographs that could identify the patient. **Conclusions:** some participants in this study are unaware of the ethical and legal implications of publishing clinical case photographs on Facebook, Twitter, and Instagram, associated with the violation of privacy, confidentiality, and the professional medical secret.

Keywords: dental ethics; ethics; internet; social networking; social media

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#### **RESUMEN**

Antecedentes: El uso de las redes sociales electrónicas (RSE) permite a los profesionales de la salud establecer relaciones mediante dispositivos electrónicos, transformando las prácticas sociales. Facebook, Twitter e Instagram son un medio cuyo patrón de conducta favorece el intercambio de información profesional, lo cual es catalogado como una conducta inapropiada que compromete el profesionalismo y la ética vulnerando la privacidad y la confidencialidad de los pacientes. Objetivo: Evaluar el comportamiento ético en RSE de odontólogos y especialistas de la salud oral con relación a la publicación de fotografías de casos clínicos. Métodos: estudio observacional descriptivo que evaluó el comportamiento ético en RSE de odontólogos y especialistas de la salud oral con relación a la publicación de fotografías de casos clínicos. Se aplicó una encuesta estructurada para obtener información sobre el uso de Facebook, Twitter e Instagram. Una p< 0,05 fue considerada estadísticamente significativa. Resultados: de los 127 participantes, el 60 % publican fotografías de casos clínicos en sus RSE desconociendo cualquier protocolo ético. El 18,11 % ha leído el Código de Ética del Odontólogo Colombiano y el 18 % ha leído las políticas internas de las RSE. El 7 % no cree que esté cometiendo alguna falta a la ética profesional cuando publica fotografías en las que se puede identificar al paciente. Conclusiones: parte de los participantes de este estudio desconocen las implicaciones éticas y legales de la publicación de fotografías de casos clínicos en Facebook, Twitter e Instagram, asociado a la vulneración de la intimidad, la privacidad y la confidencialidad del secreto médico profesional.

Palabras Clave: ética; ética odontológica; Internet; medios de comunicación sociales; redes sociales

### **RESUMO**

Antecedentes: o uso de redes sociais eletrônicas (RSE) permite que profissionais de saúde estabeleçam relações por meio de dispositivos eletrônicos, transformando práticas sociais. Facebook, Twitter e Instagram são plataformas cujos padrões de comportamento favorecem a troca de informações profissionais, classificada como conduta inadequada comprometendo o profissionalismo e a ética, violando a privacidade e a confidencialidade dos pacientes. **Objetivo**: avaliar o comportamento ético nas RSE de dentistas e especialistas em saúde oral em relação à publicação de fotografias de casos clínicos. **Métodos**: um estudo observacional descritivo avaliou o comportamento ético nas RSE de dentistas e especialistas em saúde oral em relação à publicação de fotografias de casos clínicos. Uma pesquisa estruturada foi aplicada para obter informações sobre o uso de Facebook, Twitter e Instagram. Um valor de p< 0,05 foi considerado estatisticamente significativo. **Resultados**: dos 127 participantes, 60 % publicam fotografias de casos clínicos em suas RSE sem conhecer qualquer protocolo ético. 18,11 % leram o Código de Ética do Dentista Colombiano e 18 % leram as políticas internas das RSE. 7 % não acreditam estar cometendo alguma falta ética profissional ao publicar fotografias que podem identificar o paciente. **Conclusões**: alguns participantes deste estudo desconhecem as implicações éticas e legais da publicação de fotografias de casos clínicos no Facebook, Twitter e Instagram, associadas à violação da privacidade, confidencialidade e do segredo médico profissional. **Palavras-chave:** ética; ética odontológica; Internet; redes sociais; meios de comunicação sociais

## INTRODUCTION

Electronic social networks (ESR) or SNS (Social Networking Services) are a virtual social medium or structure that, through Internet-based Web 2.0 platforms, allows human beings to establish relationships through a set of social networks. communication interconnected with each other through electronic devices, which has ultimately transformed the social practices of user people and institutions who share some relationship and who maintain interests and activities in common or are interested in exploring the interests and activities of other users (1).

The main components of CSR are the set of actors (people and institutions), the attributes of the actors (name, gender, location, etc.) and the set of relationships (ties or links) between said actors (2-4).

The CSRs Facebook, Twitter (at the time of the study the CSR kept this name, which changed to X Corp in August 2023 and Instagram constitute a medium in which users share their own content and react to the content. of other users with whom they establish interactions based on common interests, activities, identities and professions. It is even possible to share publications from one network to another through specific functions, which expands the capacity for information dissemination (5).

Facebook is an online social media and networking service that allows users, once registered, to create a personalized profile, add other users as "friends", exchange iconotextual messages, post status and story updates, share photos, videos and links, "liking" posts, using various associated software

applications, and receiving notifications of other users' activity (6). Twitter is a short iconotextual message service that allows the sending and publication of short messages called tweets or tweets, which are displayed on the user's home page. Users can "follow" other users and share or "like" their own and other users' messages. Likewise, there is the possibility of interconnecting messages through "threads" on a particular topic (7). Instagram is a CSR whose main function revolves around the ability to share photographs and videos between users through profile publications or stories, which can be interconnected in thematic conglomerates through the pound sign (#) or hashtag (8).

Currently, much of the discussion about the use of CSR and its impact on socialization processes in everyday life has focused on the management of privacy based on good information control practices in terms of access and contextual integrity; however, due Since the privacy policies of the operators of Facebook, Twitter and Instagram explicitly state that the published material is the total responsibility of the users, the occurrence of inappropriate practices from an ethical point of view lies in the lack of understanding or minimization of the consequences of sharing and exchanging information, which has been interpreted as social acceptance of the loss of privacy and the absence of limits to determine how public or private a user profile should be in virtual environments and how it should be linked to the real life (1,9-12). The study of CSR continues to be innovative while research on the perception of professionals in the current scenarios of the health system in our country is scarce.

Specifically, the behavioral patterns in CSR by students, residents and health professionals tend to favor the rapid exchange of professional information through the use of Facebook, Twitter and Instagram, which can be classified as a behavior inappropriate that compromises professionalism and ethics in health (or medical ethics in general), especially when the privacy and confidentiality of information about patients is violated (13). This type of publications generates a series of medical and legal inconveniences associated with malpractice and professional responsibility for people, educational institutions and health service providers with which teaching-care agreements are established. Such inconveniences fall within the scope of the violation of the confidentiality of the medical history in legal terms, the identification of patients in ethical matters and the violation of medical secrecy in professional matters given that, although the use of CSR has generated a paradigm shift in doctor-patient, doctor-institution and patient-institution communication, in many cases the principles of professionalism in medical practice have been violated (13,14).

Professionalism, including respect for patient privacy, constitutes one of the basic competencies that health professionals must acquire and maintain in their professional practice. The massive and poorly controlled use of CSR implies that students and health professionals must be very careful with the content they disseminate, since, although improved communication, free expression, updating trends, marketing promotion and online reputation are highly tempting and beneficial when interacting with the health community on platforms such as Facebook, Twitter and Instagram, the risk of committing breaches of ethics and professionalism is quite high (15-17).

There are numerous guidelines available for health professionals to understand and apply to the professional use of CSR. In 2010, the American Medical Association (AMA), the Federation of State Medical Boards (FASB) in 2011, and the National Council of State Boards of Nursing (NCSBN) in the same year of State Boards of Nursing) made official a series of guidelines for the ethical use of ESR by medical and nursing personnel, which can be extrapolated to all health professionals (18,19). Likewise, medical associations and colleges in various countries have proposed guides and manuals to regulate the behavior of doctors in CSR, adopting a series of standards, within which it is emphasized that the publication of information and photographs of patients, taken during the consultation, constitutes a clear violation of the right to privacy and confidentiality of the information contained in the clinical history (20,21).

The same applies to oral health professionals since the Code of Ethics of the Colombian Dentist highlights some key conditions for the disclosure of patient information, such as Article 52, which states that "The dissemination of scientific dental work and investigative work may be done through the corresponding scientific publications. It is contrary to professional ethics to make its disclosure directly

and in advance through a non-specialized person, radio, television, press or any other means of mass information" (22). Therefore, the objective of this research was to evaluate the ethical CSR behavior of dentists and oral health specialists in relation to the publication of photographs of clinical cases.

### MATERIALS AND METHODS

This is a cross-sectional descriptive observational study in which the ethical behavior in CSR (Facebook, Twitter and Instagram) of dentists and oral health specialists was evaluated in relation to the publication of photographs of clinical cases, mainly through photographs, before, during and after dental treatments in which the identity of the patients may be evident. In this sense, a structured survey was applied, prepared in Google Forms for this study, with 20 questions that sought to obtain information on sociodemographic aspects, job performance and frequency of use of CSR Facebook, Twitter and Instagram, in addition to the type of information disclosed. After conducting a pilot test to adjust the questions, the surveys were applied to different dentists and oral health specialists. The information was tabulated in a Microsoft Excel® electronic sheet through the categories of sociodemographic data, educational characteristics, use of electronic networks, ethical implications and publication of photographs. The information was processed in STATA® software version 14 through univariate and bivariate analysis. A p < 0.05 was considered statistically significant under the chi square statistic. Once the endorsement of the Institutional Human Ethics Review Committee of the Faculty of Health of the Universidad del Valle (CIREH) was obtained, the socialization of the access link to the survey was conducted via email and the CSRs to be investigated, including WhatsApp, obtained from lists of enrolled students and databases of graduates. Those who answered the survey completely were included in the study, so that the sample was constituted by convenience. It is important to state that the confidentiality of the information was maintained at all times, in accordance with Law 1581 of 2012 and Resolution 8430 of 1993.

## RESULTS

The 127 participants who answered the survey authorized the use of the information for research purposes. The sample was made up of 70 women (55.5 %) and 56 men (44.5 %). The average age of the participants was 37.11 years with a standard deviation of 11.09 years, having a minimum age of 23 years and reaching a maximum of 67 years.

Table 1 described the educational characteristics of the sample, including the area of performance and the site of professional training. The majority of the sample corresponds to graduates from the Universidad del Valle and conduct their practice in the city of Cali, a little less than half of the sample as general dentists and the other half as specialists, being oral rehabilitation and periodontics and implantology. the areas of greatest performance. The largest number of participants reported income greater than 273.66 USD (1,027,688.17 COP at the time of the study). Two participants reserved their response regarding their financial income.

Regarding the use of CSR, Table 2 shows the use of Facebook, Twitter and Instagram, in addition to the participants' perception of CSR. Around 53 % of those surveyed did not describe any differential benefit from the use of ESR and the publication of clinical cases, while around 47 % expressed that they had had some type of benefit, among which is the increase in patients. and professional recognition. Only one participant reported an academic contribution in the use of these. Some participants reported a negative effect on the use of CSR with respect to the publication of clinical cases; Three participants even criticized its use by colleagues and one participant criticized its use by patients. Most participants who publish clinical cases publish photographs, sometimes accompanied by reasons for consultation, diagnoses and treatment plans. This practice of publishing photographs, at around 73 %, was justified under various commercial purposes such as advertising and marketing.

TABLE 1
Description of the educational features of the sample

Characteristics		N	Percentage
University from which			84,25
graduated in undergraduate studies	Other	20	15,75
University from which	Universidad del Valle	50	39,37
graduated in graduate	Other	33	25,98
studies	None	44	34,65
Primary Performance Area	General Dentistry	58	45,67
	Oral Rehabilitation	14	11,02
	Endodontics	9	7,09
	Pediatric Dentistry	9	7,09
	Periodontics and Implantology	10	7,88
	Orthodontics	8	6,30
	Oral and Maxillofacial Surgery	5	3,94
	Administrative Area	5	3,94
	Teaching	5	3,94
	Epidemiology	4	3,15
Site of professional	Cali (Valle del Cauca)	94	74,02
performance	Colombia (Outside Cali)	18	14,17
	External	15	11,81
Average Monthly Income	Less than 273,66 USD	21	16,80
	273, 66 - 820,97 USD	40	32
	820,97 - 1368,98 USD	24	19,20
	More than 1368,98 USD	40	32

Source: Authors

TABLA 2
Use of electronic social networks

Characteristics		N	Percentage
Use of social networks	Facebook - Instagram	69	54,33
	Facebook - Instagram - Twitter	29	22,83
	Instagram	12	9,45
	Facebook	8	6,30
	Other combinations	5	3,93
	None	4	3,15
Use of professional-	Instagram	20	15,75
exclusive social	Facebook - Instagram	15	11,81
networks	Facebook	5	3,94
	Twitter	1	0,79
	Facebook - Instagram - Twitter	1	0,79
	Instagram - Twitter	1	0,79
	None	84	66,14
Publishes clinical cases	Yes	46	36,22
on their social networks	No	81	63,78
Frequency of social	One hour or less per day	44	34,65
network use	2-4 hours per day	66	51,97
	4-6 hours per day	13	10,24
	Not applicable	4	3,15
Believes that social	Yes	110	86,61
networks can be a	No	17	13,39
source of professional			
recognition			

Source: Authors.

Regarding the ethical aspects involved in the use of CSR by oral health professionals, Table 3 describes the publication of clinical cases based on photographs of the patients. It is striking that 60 % of the participants who publish photographs of clinical cases in their RSE are unaware of the ethical protocol for publishing photographs, and around 47 % are not aware of any type of regulation or ethical policy, in fact, only the 18.11 % of the participants have read Article 52 of the Code of Ethics of the Colombian Dentist and 3.8 % have read the Dental Ethics Manual of the International Dental Federation. Only about 18 % of participants have read the internal posting policies of Facebook, Twitter and Instagram. 7 % of the participants do not believe that they are committing any breach of professional ethics when they publish photographs of clinical cases in which the patient can be identified, 11% do not know and the remaining 81.8 % believe that they are committing faults. to professional ethics. The activity of publishing clinical cases showed that of the 46 people who publish this information on their networks, 34 consider that by publishing photographs in which the patient is identified they are committing an ethical mistake, which is equivalent to around 73 % of the time.

TABLA 3
Ethical aspects involved in the use of electronic social networks

Characteristics			Percentage
Before publishing clinical cases, requests	Yes	65	62,5
written authorization from the patient	No	39	32,5
Is aware of the ethical protocol for	Yes	52	40,94
publishing photographs on social media	No	75	59,06
Is familiar with and has read some of the	Article 52 of the Code of Ethics	23	18,11
ethical and privacy regulations related to	for Colombian Dentists		
social media posts	Social Media Policies	15	11,81
	Article 52 of the Code of Ethics	9	7,09
	for Colombian Dentists and		
	Social Media Policies		
	Other	7	5,5
	None	73	57,48
By publishing photographs of clinical cases	Yes	104	81,89
where the patient can be identified, is	No	9	7,09
committing a professional ethical violation	Not aware	14	11,02

Source: Authors.

Table 4 describes some of the publication characteristics by sex, in which no significant differences were found between female and male individuals.

TABLA 4
Description of gender-based publication differences

Chanastanistics		Sex	*			
Characteristics	Female Male		— p*			
Type of information published						
Photographs	22	26	0,17			
Does not publish	44	26				
Other	4	4				
Publication of clinical cases on social media						
Yes	22	24	0,18			
No	48	32				
Knowledge about the ethical protocol for the publication of photographs						
Yes	26	26	0,26			
No	44	26				

<sup>\*</sup> Chi-square statistic. Source: the authors.

Table 5 generally describes the difference that exists, by age, in the use and considerations of CSR, finding that the differences are significant when it comes to the use of CSR. In general, individuals of all ages consider CSR to be an input or an instrument to gain professional recognition. There is no significant difference by age in terms of the use of an exclusive social network for professional practice, nor in the relationship with the publication of clinical cases. A bivariate analysis was performed to understand the behavior of publications of photographs of clinical cases and its relationship with ethics in the dental context. In this sense, a broad relationship was found between age and publication activity, in which around 71 % of dentists who publish cases in their RSE are between 20 and 39 years old, however, this relationship was not significant. (p= 0.07). There are also no significant differences by age in terms of the perception of different benefits or negative effects compared to the publication of clinical cases.

TABLA 5
Description of age-based publication differences

Characteristics		Age (Years)				p*
	20-29	30-39	40-49	50-59	60 & above	
	Frequ	ency of Soc	ial Media	Usage		
1 hour/day	6	15	6	13	4	< 0,05
2-4 hours/day	27	24	8	7	0	
4-6 hours/day	6	4	3	0	0	
Not applicable	1	1	1	0	1	
	Тур	e of informa	ation publi	shed		
Photographs	12	24	5	5	2	0,07
Did not publish	25	19	13	12	2	
Other	3	1	0	3	1	
Knowledg	ge about the eth	ical protoco	l for the pi	ublication	of photographs	
Yes	10	20	9	9	4	0,07
No	30	24	9	11	1	
		Economic	cincome			
Less than 273,66 USD	14	7	0	0	0	< 0,05
273, 66 - 820,97 USD	20	10	4	6	0	
820,97 - 1368,98 USD	4	8	7	4	1	
More than 1368,98 USD	1	19	7	9	4	

\*Chi-square statistic Source: Authors.

Table 6 shows the list of the most preferred CSRs for the publication of photographs of clinical cases. It was established that around 76 % of the participants who publish clinical cases have an exclusive CSR for this, in such a way that 97 % of the participants have a user profile on Instagram and 42 % use it exclusively to disseminate and socialize their clinical cases. Similarly, 42 % of participants use Facebook for these purposes.

TABLE 6
Publication of clinical case photographs on electronic social networks

Electronic social networks	¿ Do you publish clinical cases on your social networks?			
	Yes	No	Total	
Instagram	15	5	20	
Facebook - Instagram	15	0	15	
Facebook	3	2	5	
Twitter	0	1	1	
Facebook - Instagram - Twitter	1	0	1	
Instagram -Twitter	1	0	1	
None	11	73	84	
Total	46	81	127	

Source: Authors.

## DISCUSSION

The professional behavior of dentists and oral health specialists, analyzed in the different face-to-face social environments that are part of clinical practice, has been widely discussed based on the ethical regulations that exist in the country, but not the virtual social environments, where The implications that are constantly constructed and reconstructed in the connection between computing, ethics and information give an account of computer ethics or cyberethics as the part of ethics that determines and analyzes the social and ethical impact of technological advances. CSR (12,23,24). The publication of photographs of clinical cases by dentists and oral health specialists is a clear example of the violation of the conduct of professional medical secrecy, which definitively corresponds to respect for privacy, including the nature of the disease and all the circumstances related to it, which are mainly affected by using CSR as a means of advertising and marketing or to gain professional recognition (25-27).

It is interesting how at least one in three dentists, both general and specialist, publish photographs of clinical cases in CSR, mainly the youngest ones, associated with the fact that in the information age the young population has had greater access and has developed new forms to promote clinical practice mediated by technology. In this sense, research around technology has influenced the improvement of clinical protocols, the mitigation of errors surrounding clinical practice, educational guidance and teaching methodologies for patients (28). Bahabri and Zaidan found that 86 % of dentists published photographs of clinical cases without verbal and/or written consent from the patients, although 65 % reported that the identity of the patients was not exposed as they were close-ups of the oral cavity. (29).

## Use of Clinical Photographs and Impact on Privacy and Confidentiality

Intimacy, privacy and confidentiality constitute fundamental rights of human beings, adopted by the General Assembly of the United Nations, ratified by the Inter-American Court of Human Rights – to which Colombia is affiliated – and protected by the principles of the World Medical Association, including the Declaration of Helsinki. In the case of the Colombian State/nation, the 1991 Political Constitution makes explicit in Article 15 that "All people have the right to their personal and family privacy and to their good name, and the State must respect them and ensure they are respected," and in the Article 17 that "No one shall be subject to arbitrary or illegal interference in his private life, family, home or correspondence, nor to illegal attacks on his honor or reputation." That is why the Colombian Penal Code was modified by Law 1273 of January 5, 2009, with the purpose of protecting "information and data and fully preserving systems that use information and communications technologies" to through the creation of a new protected legal asset that regulates the confidentiality of the information and data of a person contained in a file, archive (which includes the archive of medical records), database or similar means without being authorized for this (30).

When it comes to medical and dental practice, the legislation is quite clear in this regard. Resolution 1995 of 1999 (31) determines that the medical history "is a private, mandatory and confidential document, in which the patient's health conditions, medical acts and other procedures conducted by the medical team are chronologically recorded. health that intervenes in your care"; Likewise, Law 23 of 1981 (32) stipulates that the medical history "is a private document subject to confidentiality that can only be known by third parties with prior authorization from the patient", including all annexes such as paraclinical examinations and diagnostic aids, within the which are the photographs that support the diagnosis, treatment and evolution of the clinical case, in such a way that the photographs taken of the patients are part of the clinical history and the legal, technical, scientific and administrative documents of the processes attention, which is why they are covered by the referenced legislation.

On the one hand, the Colombian Code of Medical Ethics (22), in Section 4 of Article 1 states that "the doctor-patient relationship is a primary element in medical practice. For this relationship to be fully successful, it must be based on a responsible, loyal and authentic commitment, which imposes the strictest professional confidentiality" and in Article 37 that "the doctor is obliged to maintain professional secrecy in everything that for reasons of the exercise of his profession he has seen, heard or understood, except in the cases contemplated by legal provisions." As an extension, the rules on medical ethics, according to Article 53, extend to recommendations of the World Medical Association (33), which, in matters of the professional and ethical use of social media, invites the recognition of the positive aspects of social networks to promote healthy lifestyles, taking sensitive care with patient photographs because the patient's intimacy and privacy can be compromised, even more so when the privacy regulations of Facebook, Twitter and Instagram have been established unilaterally, so disclosure to third parties affects professional responsibility (34).

On the other hand, the Code of Ethics of the Colombian Dentist (22) in Article 23 indicates that "the dentist is obliged to keep professional secrecy in everything that, due to the exercise of his profession, he has seen, heard and understood, except in cases where it is exempt from it by legal provisions." Clearly, the publication of photographs of clinical cases in CSR constitutes a clear violation of the right to privacy, privacy and confidentiality of the information contained in the clinical history, which has ethical and legal implications and negatively affects the trust of the patients. people not only in the medical profession, but in all health professions, including dentistry and its specializations. In this sense, the principles of medical ethics of the American Medical Association can serve as a framework to discuss the ethical implications of the medical and dental use of ESR, with the safeguarding of patient confidentiality and privacy being the most violated by the practice. unauthorized publication and dissemination (with or without intention) of photographs of clinical cases.

The possibility of having multimedia tools to disseminate information on clinical procedures with quick and easy access to students and oral health professionals should not lead the user of the RSE to lose prudence and affect professional medical secrecy. To avoid this, the Spanish Collegiate Medical Organization suggests, before making any disclosure of information in CSR, reviewing whether the photograph that is published allows the patient to be identified and/or access to their identity information (35). In both cases, you should avoid showing the face, name or any other information that puts the patient's confidentiality at risk; This is when the student, dentist or oral health specialist has clearly determined the objective of the publication in the CSR, which must result in the principle of beneficence for the patient and the academic and scientific interest for the dental community (35), while the Code of Ethics of the Colombian Dentist (22) emphasizes in Article 52 that "the dissemination of scientific and investigative dental work may be done through the corresponding scientific publications. It is contrary to professional ethics to make its disclosure directly and in advance through a non-specialized person, radio, television, press or any other means of mass information," which includes CSR.

## Use of Clinical Photographs in Advertising and Marketing

It is clear that human relations have undergone a great transformation because CSR has led to a true revolution in communication. In this historical context, dentists and oral health specialists have seen in these scenarios an ideal tool for the dissemination of dental practice for informative and instrumental purposes of advertising, marketing and brand identity, however, the artistic and technical dimensions Advertising must always be subject to legal and ethical dimensions, so it must not violate the dignity of patients and/or violate the values and rights recognized by current legislation, which includes respect for privacy, privacy and confidentiality of the doctor-patient relationship. Likewise, the use of health marketing has been widely criticized due to the deliberate belief that it creates information biases that, biased and accommodated, induce patients to make decisions about an unnecessary health demand;

However, well-oriented marketing strategies (not only based on market mechanisms but also under ethical evaluations) can generate value from the satisfaction of patients' needs and expectations, since the technical and scientific advances of the procedures Dental clinics allow oral health professionals to make a better, higher value proposition for the benefit of patients, which in turn allows the professionals themselves to create and position themselves as a brand that represents all the values and concepts that the dentist and the oral health specialist represent (36). Considering that the brand reflects the professional's way of feeling, living and thinking, this brand identity connects with the emotional dimension of the patient by addressing their deepest feelings and desires. In this sense, dental aesthetics, to cite an example, within the physical and mental definition of health has become a fundamental tool to build the prestige and authority that provide credibility and reputation to clinical practice. dental. Edwards *et al.* had already highlighted that CSR constitutes an important and powerful tool for managing the reputation of dentists (37).

If marketing advertising and brand identity establish a new way of linking the health professional with the patient, CSR constitutes the best channel to establish this relationship in an area of professionalism, respect, trust, freedom and dignity (35). It is this situation that has motivated students, dentists and oral health specialists to create user profiles in the main RSEs. From there, they make themselves known, exhibit their skills and demonstrate their knowledge, although the possibility of calling professionalism into question is always close when publications exceed the limits between what is and what is not considered ethical, especially when photographs of clinical cases are published (38).

According to Bahabri and Zaidan, CSRs have a fairly considerable impact on the advertising and marketing of services offered by general dentists, of which 30 % report that the different platforms have contributed significantly to effective interaction with future patients. which ultimately results in a greater number of people attending the office seeking the services offered and promoted from dental practice (29). Nelson *et al.* showed that compared to traditional advertising methods (health magazines, newspapers, radio and television), marketing through CSR has been more efficient, since it reaches more people at a lower cost and allows direct interaction with users, with Instagram and Facebook being the most used platforms (39). In the case of this study, Instagram and Facebook coincide as the CSRs most used in the context of publishing photographs of clinical cases, including both networks being used simultaneously to generate greater impact and visibility.

By 2016, Facebook, Twitter and Instagram had already revolutionized the traditional forms of communication and advertising for oral health professionals, being used to promote services by about 88.8 %, 50 % and 42.4 % of dentists respectively (40). However, given the disruptive technological nature of the use of CSR for advertising, marketing and brand identity purposes, it does not make sense for students, dentists and oral health specialists to avoid using Facebook, Twitter and Instagram for such purposes. The professional challenge involves making innovative use of CSR in accordance with the ethical considerations regulated by the Constitution, laws and existing codes of ethics, which requires the adaptation of attitudes and behaviors that support an online presence that promotes responsible, prudent and appropriate construction of a doctor-patient relationship. In this sense, the information available in the literature on the behavior of oral health professionals in RSE is insufficient when taking stock of how its use can violate considerations of intimacy, privacy and confidentiality, affect professionalism and degrade the trust that society has in the professional and the profession. The parameters of what and what cannot be published in ESRs to optimize patient experiences have not yet been defined. The ethical, legal and professional problems that result from publishing photographs of clinical cases are still under discussion while potential threats to professionalism become increasingly evident (41).

In the same way that oral health professionals must obtain patient approval, through informed consent, to publish and disseminate clinical information and photographs in academic and scientific journals and books, the same procedure should be required for the case of publication and dissemination in the CSR, although the objectives are not the same. In the first case, the publication process of scientific articles is regulated by a series of rules that control the management of information and the visual

recognition of patients through the editorial policy of the journals and the biomedical writing guidelines. , bibliographic bases and indexing directories that manage the visibility, access and availability of information. In the second case, there is no clear regulation beyond the recommendations made by the various medical and dental societies. However, the Law is clear, information that compromises the intimacy, privacy and confidentiality of patients should not be published and disclosed (41).

Dentists and oral health specialists who publish photographs of clinical cases on Facebook, Twitter and Instagram do so with two fundamental purposes, the first includes a clear intention of advertising, marketing and brand identity directed at CSR users to attract them in quality of future patients; and the second corresponds to a pedagogical purpose in which colleagues are presented with the way in which the case was managed according to established clinical protocols and how a result with an accurate aesthetic and functional prognosis was obtained (41).

## Legal Considerations on the Use of Clinical Photographs in CSR

The Code of Ethics of the Colombian Dentist does not differentiate between the two purposes, as long as the iconotextual information published (association of images with words) in an academic and scientific journal complies with the confidentiality parameters of professional medical secrecy and with consent. informed of the patient. Regarding the latter, the revised Colombian legislation is also specific. The discussion then revolves around the principle of beneficence: Does publishing photographs of clinical cases generate any benefit for the patient when it is identifiable and the patient consents to the publication in CSR? Initially the answer could be positive if the photographs are linked to the user profile of an oral health professional who, through the interaction between the image and the text, promotes his or her dental practice for advertising, academic and scientific purposes, as the profile The user interface brings together all the images and presents them as a portfolio in which a visual field is configured based on a thematic unit, the successful clinical case history of a dentist. But, if we consider the CSR information management policies, the answer is entirely negative. It should be noted that users grant Facebook and Twitter the possibility for other users and partners to collect and interact with the information that is published, giving legitimate rights to collect, use and share such information. Likewise, Instagram manages a free, non-exclusive, sublicensable and transferable worldwide use license for all published content. That is, any user of the CSR can take the photographs and publish and disseminate them in other contexts, with which the photograph of the clinical case loses its pedagogical, academic and scientific status, to the extent that it acquires other connotations and other purposes. The image is decontextualized from the text and loses its initial purpose. Therefore, the discussion should focus on the management of privacy in CSR based on good information control practices in terms of access and contextual integrity (1).

The jurisprudence of the Constitutional Court of Colombia has addressed various aspects regarding the "right of every person to manage their own image", a right that includes "the need for consent for its use" and that constitutes "a direct expression of their individuality." and identity." This means that the use of each person's image, having an important social value linked to dignity and freedom, requires prior autonomous consent on the part of the person. Sentence C-355 of 1994 (in response to a claim of unconstitutionality filed against Articles 50 and 51 of Law 35 of 1989) declares Article 50 and parts of Article 51 unenforceable, because propaganda, an activity intended to make a good or service known to the public, and advertising, dissemination of news or advertisements of a commercial or professional nature – both for the purposes of attraction through any means of dissemination – do not constitute, in and of themselves, an offense to ethics, Therefore, they are considered nuances of freedom of expression that are objects of constitutional protection. Considering that the practice of dentistry is founded on altruistic human values and that its practice requires an eminently humanistic character, economic remuneration does not represent any harm, so what advertising, marketing and brand identity –

legitimate, ethical and under the principle of good faith – does not minimize or undermine professional practice. In this sense, propaganda and advertising aimed at publicizing the professional and the services he or she provides is perfectly constitutional and does not constitute an ethical offense in itself. However, since it does not rule out improper, illegitimate and unethical use, it is completely natural for the State/nation to exercise control mechanisms (e.g., the National Court of Dental Ethics) on advertisements or communications that affect human beings, professional responsibility and intellectual property. Likewise, the Constitutional Court of Colombia in ruling T-695 of 2017 (which ratifies the right to honor and good name) stated that freedom of expression, including the guarantee to express or receive thoughts, opinions, and to inform and Being truthfully and impartially informed is a fundamental right, however, it entails responsibilities and obligations for its owner, since it is not an unrestricted or unlimited right, and in no case can it be understood as a tool to violate the rights of other members of the community. community, especially when it comes to the rights to good name, honor and privacy.

Given this legal discussion – from the last 30 years – the National Court of Dental Ethics presented a statement on May 24, 2021, in which it prohibited the publication of dental works in CSR, fundamentally associated with the social risk that this caused. The court stated that the publication, for propaganda or advertising purposes, of information on dental procedures, including photographs of clinical cases, violates article 52 of the Code of Ethics of the Colombian Dentist, because CSR such as Facebook, Twitter and Instagram correspond to mass media that are not considered scientific publications and that do not have a prior review system for what is published, so the criteria of scientific rigor, sufficiency in information and foundation in evidence are not assured. Likewise, the same court presented a second clarifying statement – given the confusion of some sectors of the Colombian dental community – on May 31, 2021, in which it was made explicit that oral health professionals could advertise in the media. massive, including CSR, but in compliance with the provisions of the Constitutional Court of Colombia in ruling C-355 of 1994, in such a way that the propaganda and advertising carried out by students, dentists and oral health specialists must be subject to legal criteria and limitations related to obtaining special informed consent in the case of using people's images, in addition to fulfilling the purpose of preventing the social risk that is created when the dissemination of dental procedures does not meet the requirements demanded by the scientific publications, which generates massive unwanted effects that affect not only the privacy, intimacy and confidentiality of professional medical secrecy, but also people's health (associated with insufficient information). Finally, this practice can seriously affect the prestige of all professionals and trust in Colombian dentistry.

Given this situation, it is inferred that the publication of photographs of clinical cases in which intimate, private and confidential information of the patient is revealed (such as their identity) results in an inopportune, reckless and inappropriate practice that violates the confidentiality of the information about patients and that can generate negative expectations about the ethical and professional behavior of the student, dentist and oral health specialist. In general, it was possible to establish in this study that the ethical ignorance that exists around the publication of photographs of clinical cases in the ESR was widespread. Around six out of ten dentists who make this type of publications do not know the ethical regulations in this regard; However, around six out of ten stated that they request some type of authorization (e.g., informed consent) from patients to make the publication; however, additional research is required to establish the quality of the information filled out in this type of documents.

Villamizar *et al.* (1) stated that given how attractive and useful free access to all information can be, users do not understand or minimize the consequences of sharing and exchanging information in CSR, which has been interpreted as social acceptance. of the loss of privacy and the absence of limits that determine how public or private a user profile should be in virtual environments and how it should be linked to real life.

## **CONCLUSIONS**

Given that CSR changed the way in which human beings communicate and relate (including the doctor-patient or dentist-patient relationship), it is essential to investigate the impact of CSR on publication, dissemination, advertising, marketing and brand identity that students, dentists and oral health specialists make of their clinical practice. The results obtained in this study show the urgency in raising awareness about the risks and benefits for the professional practice of this type of practices, in addition to suggesting a trend that could be generated and that could be analyzed in subsequent studies with some type of scope, population by increasing the sample size. Many of the participants in this study are unaware of the ethical and legal implications of publishing photographs of clinical cases on Facebook, Twitter and Instagram, associated with the violation of intimacy, privacy and confidentiality of professional medical secrecy. However, the majority of those surveyed recognize that the use of RSE generates a great impact on the recognition made by patients and colleagues themselves, although they are not aware that professionalism will be affected if this impact is negative due to the inappropriate use of the information published and disclosed.

Given the trend that currently exists regarding advertising, marketing and brand identity in CSR, it is recommended that the information published comply with all the legal and ethical considerations described and referenced, always being clear about the pedagogical, academic and scientific objective of the publication., and maintaining absolute control over the intimacy, privacy and confidentiality of professional medical secrecy. To this end, it is very useful to consider the statement on the professional and ethical use of social media from the World Medical Association (33): 1. Ensure that no identifiable patient information is published on a social media outlet; 2. Draw the attention of students and health professionals to the fact that the publication of electronic information can also contribute to the public perception of the profession; 3. Consider including educational programs with relevant case studies and appropriate standards in undergraduate and graduate dental programs; and 4. Raise concerns with a colleague when they observe clearly inappropriate behavior that significantly violates professional standards.

## RECOMMENDATIONS

Faced with the tendency to publish photographs that violate the confidentiality of the medical history, that allow the identity of patients, academic institutions and health service providers to be known, and that reveal medical secrecy, they are included in the lectures of Medical Ethics and Bioethics, and in any related academic space, conferences and master classes that encourage discussion on the ethical and legal implications of the dissemination of photographs of patients in ESR, an activity that can compromise the professionalism of students, residents and medical professionals, who are suggested to read and follow the recommendations proposed by the World Medical Association in this regard.

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