



EDITORIAL

Use of new technologies for communicating with patients: Their usefulness and their risks[☆]



Uso de nuevas tecnologías en la comunicación con los pacientes, su utilidad y sus riesgos

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We live in an era of digital transformation. We often read news about big data, artificial intelligence, robotics, virtual reality, smart implants or devices, nanotechnology or advances in information and communication technologies (ICTs) that generate optimistic expectations in regard to health and health care. Looking at these technologies, the enormous diffusion of smartphones stands out, with slightly over 54 million devices in Spain, a figure that exceeds the number of inhabitants of approximately 46.7 million. Of the total population, some 42 million, a bit more than 90%, have an Internet connection, and about 29 million, or 62%, are active in social networks.¹ The most widely used social networks, Facebook, YouTube, Instagram and Twitter, have revolutionised the way in which we relate to others.

On the other hand, the development of instant messaging applications such as WhatsApp—the global leader both in terms of users (approximately 1600 million) and the number of countries where it is the most used instant messaging application (138)—allows immediate communication through the Internet with any part of the world as long as a connection is available (via Wi-Fi or mobile data networks) through free phone calls, videoconferences, sharing of data,

audio or image (photographs or videos) files, which can be of increasingly large size and distributed faster as connection speeds increase.

In this context of social networks and applications that facilitate communication, the doctor–patient relationship could not be left behind, and it is manifestly being transformed.

Social networks

Public health institutions, health care organisations and facilities, and scientific societies have taken a step forward in their communication with the general population and the patient population with their growing presence in social networks. The role of most of these actors may be considered mostly unidirectional, emitting messages for the population, at times akin to advertising, with little interaction with the target audience.

On their part, patients and their families, in the same way that they may form connections to others with similar diseases or needs, also communicate using social networks through groups or platforms that allow them to share information with or without the participation of health care professionals.

In the latter case, the presence in social networks of doctors or paediatricians, to put an example, involves the additional challenge of separating the professional from the personal, which is not always easy. The motivation to use these networks may differ based on whether the health pro-

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professional works in a public or a private facility. Physicians that use social networks highlight that they are user-friendly and make it easy to search, find and share relevant information, establish contact and collaborate with colleagues or other professionals, and have potential for educational purposes; few actually use them to be in direct contact with patients, mainly because it is difficult to safeguard their privacy and confidentiality.

In any case, whether a paediatrician is starting to consider participating in social networks or is already an active user, we recommend consulting some of the guidelines on the appropriate use of these networks by physicians, such as the one published by the Organización Médica Colegial (Board of Physicians) of Spain.²

Instant messaging services: WhatsApp and similar applications

Paediatric clinics habitually use phone calls, text messages and electronic mail to communicate with families, perhaps not as widely or successfully as it has been expected based on the potential of these vehicles. This is particularly true when it comes to email, perhaps due to the difficulty of transferring the information to electronic health records and the lack of guidelines for their use by health providers addressing concerns about security.

There are many advantages to using more advanced messaging systems, such as WhatsApp messenger. They are more reliable (except during system outages), cheaper, and a large portion of the population have one installed and use it daily through any number of devices, such as mobile phones, tablets or computers, from anywhere with an internet connection and asynchronously, without requiring an immediate response. They offer confirmation that messages have been received, and allow the attachment of files and making audio or video calls with an acceptable quality and level of security. Many studies in the literature have described the benefits of following up patients in different medical or surgical services using WhatsApp messages, although some of these studies are of limited quality, and we need to take into account the publication bias in favour of studies with positive results.

Instant messaging offers so many advantages that in some countries, such as Brazil or Argentina, it is used habitually in health care. In a 2018 survey of 2530 paediatricians in Argentina about the use of ICTs, 76.9% reported using some form of messaging application to communicate with their patients. WhatsApp was the preferred choice of nearly 77% for these interactions.³ In opposition, the National Health Service (NHS) of the United Kingdom recommends against the use of these applications for submitting medical information.

The risks involved in using an instant messaging application such as WhatsApp for doctor-patient communication

involve the potential intrusiveness of these communications, the potential inappropriate use on the part of patients or their families, the risk of misunderstandings, the difficulty of integrating information from these apps in the health records, concerns about confidentiality and privacy, the difficulty in guaranteeing the security and safe storage of the data, and difficulty adhering to the regulations imposed by Organic Law 3/2018, of December 5, on the Protection of Personal Data and Guaranteeing of Digital Rights, as discussed in an article in this same issue of *Anales de Pediatría*.⁴ In the case of WhatsApp, some of these problems are addressed by the Business version.

Patient portals

These are secure web-based systems that allow patients with an internet connection, after proper identification, to access electronic health care record data, set up appointments and in some cases exchange messages with their physician. Since they are integrated in the electronic health records database, these portals have to address issues regarding privacy, confidentiality, security and medical legal issues.³

Any system used for patient-doctor communication must be based on mutual trust and requires informed consent and clear rules for use.

On the other hand, we must work against the inverse care law,⁵ by which we would devote more efforts to individuals with greater access to technology, who tend to be healthier and have a higher socioeconomic status, and less effort to those who need it most, the most vulnerable, who may have more limited or no access to technology.

Everything we have discussed pertains to the present, soon to be the past. In the immediate future, technological innovation will continue to step forward and face-to-face as well as telemedicine medical services will change again. We just need to keep adapting.

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