

Physician's Perception About Patient Communication

Using WhatsApp®

Percepção do médico sobre a comunicação com o paciente usando o WhatsApp®

Carolina Campos dos Santos¹, Eric Pinheiro de Andrade²

1 - Graduation Student from the Centro Universitário das Américas. ORCID: 0000-0002-4353-1202.

2 - Full Professor at Centro Universitário São Camilo, Head of the Neurophthalmology Section and General Coordinator of Postgraduate Lato Sensu at HSPE-Iamspe. ORCID: 0000-0002-3331-786X.

ABSTRACT

Introduction: The use of the WhatsApp® application has become an essential tool in the routine of Brazilian physicians. Due to growing insecurity and ethical dilemmas related to the theme, it is necessary to study the perception of these professionals, to use it as a basis for future regulation. **Objective:** The purpose of this study is to describe the physician's perception about the use of WhatsApp® in the physician-patient relationship. **Design and settings:** This study a cross-sectional of Brazilians physicians from Escola Paulista de Medicina - UNIFESP and Centro Universitário das Américas. **Methods:** Three questionnaires were distributed to 287 physicians in physical or online format, email and Google Forms®, respectively. A descriptive analysis was obtained. **Results:** Forty-seven (16.37%) physicians (out of 287) participated in the study. About 80.85% (38) use WhatsApp® with patients 80% (29) to clarify doubts. Agility and speed in communication were the main advantages described. A profile of insecurity about legal issues was presented by 25% (9) of the participants, in addition to situations of abuse of use and invasion of privacy by 41.6% (15). 30 (78.9%) considered the use of WhatsApp® ethical and appropriate. **Conclusion:** This study demonstrates that the use of WhatsApp® offers several benefits, even with so many situations generating insecurity among professionals. Most participants reported that they would feel more comfortable if there was prior training, justifying the need for regulation and consensus on how physicians should behave online.

MeSH: Medical Ethics; physician-patient relationship; social networks.

Keywords: Telemedicine; telecommunication; application; social media; WhatsApp®.

RESUMO

Introdução: O uso do aplicativo WhatsApp® tornou-se uma ferramenta essencial na rotina dos médicos brasileiros. Devido à crescente insegurança e dilemas éticos relacionados ao tema, faz-se necessário estudar a percepção desses profissionais, para utilizá-la como base para futura regulamentação. **Objetivo:** O objetivo deste estudo é descrever a percepção do médico sobre o uso do WhatsApp® na relação médico-paciente. **Desenho e cenários:** Estudo transversal com médicos brasileiros da Escola Paulista de Medicina - UNIFESP e Centro Universitário das Américas. **Métodos:** Foram distribuídos três questionários para 287 médicos em formato físico ou online, e-mail e Google Forms®, respectivamente. Obteve-se uma análise descritiva. **Resultados:** Quarenta e sete (16,37%) médicos (de 287) participaram do estudo. Cerca de 80,85% (38) utilizam o WhatsApp® com os pacientes 80% (29) para esclarecer dúvidas. Agilidade e rapidez na comunicação foram as principais vantagens descritas. Um perfil de insegurança sobre questões legais foi apresentado por 25% (9) dos participantes, além de situações de abuso de uso e invasão de privacidade por 41,6% (15). 30 (78,9%) consideraram o uso do WhatsApp® ético e adequado. **Conclusão:** Este estudo demonstra que o uso do WhatsApp® oferece diversos benefícios, mesmo com tantas situações gerando insegurança entre os profissionais. A maioria dos participantes relatou que se sentiria mais confortável se houvesse treinamento prévio, justificando a necessidade de regulamentação e consenso sobre como os médicos deveriam se comportar online. **MeSH:** Ética Médica; relação médico-paciente; redes sociais.

Palavras-chave: Telemedicina; telecomunicação; aplicativo; mídia social; Whatsapp®.

Correspondência:

Carolina Campos dos Santos
E-mail: carolcampos2612@gmail.com
Data de submissão: 08/01/2021
Data de aceite: 13/10/2021

Trabalho realizado:

Study developed in Centro Universitário das Américas, Sao Paulo, Brazil. Research presented at the Bioethics Center of the Regional Council of Medicine of the State of São Paulo in February 2020. Also presented at the IV Bahia Congress of Bioethics and Biology on October 23, 2020.

INTRODUCTION

The physician-patient relationship is progressively evolving into a more virtual form with the increasing use of social media. This distance communication started with the rise of the telegraph and telephone in the 20th century and has been expanded with more modern tools, such as the development of new devices and systems, and the use of smartphones, characterizing what is being known for m-Health¹.

An online survey conducted, in 2019 with 848 physicians, by the Associação Paulista de Medicina (APM) revealed that 85% (720) were favorited in using instant messaging tools, such as the WhatsApp® application, and of these only 23% (195) still do not use it². This statistical data is revealed by the British consultancy Cello Health Insight (2015), in which Brazil was one of the countries that most use the application to communicate with patients, where 9 out of 10 physicians use WhatsApp®. Different from the United Kingdom, where only 2% of physicians used it³. This information converges to reveal a medical class increasingly computerized and directed to telemedicine, which uses these new tools to facilitate and strengthen the physician-patient relationship²⁻³.

The perception of professionals using virtual communication varies according to culture. In Australia the practice is unusual due to a reluctance to use and a concern with legal and privacy issues⁴. However, in Lebanon, about 70% of physicians use the application for professional purposes, 42.4% see it as a benefit to patient education despite 78.6% consider that this mode of communication can result in legal complications⁵. Although studies in several countries reveal a negative and insecure result regarding the use of social media, this information may not reflect the Brazilian reality⁶. Few surveys about the practice of virtual communication with patients are available. Although the percentages and opinions regarding issues, such as

teleconsultation and technological tools, are known, little knowledge about the perception of professionals using the main application, WhatsApp®, were described⁴⁻⁷.

According to the Brazilian Code of Medical Ethics, the responsibility for consultation via telemedicine lies with the Federal Council of Medicine (CFM), which limits the use of virtual instruments but does not have a control⁸⁻⁹. In its legislation, CFM mentions that services provided through telemedicine must obey the rules of privacy and preservation of professional secrecy¹⁰. However, WhatsApp® does not meet the technical privacy and security criteria required by CFM, even though it has become routine by doctors. Thus, this research aims to survey how the physicians use WhatsApp®, what is the perception about it, and the ethical opinions, to serve as a basis for future regulation.

OBJECTIVES

The aim of this study is to describe the opinions of physicians about the use of WhatsApp® to communicate with the patient, as well as the purposes and patterns of use.

METHODS

Participants

This was a cross-sectional observational study carried out with physicians from Escola Paulista de Medicina - UNIFESP and Centro Universitário das Américas, from September to December 2019. The project was approved by the Research Ethics Committee (CEP) of the Centro Universitário das Américas under the opinion number: 3.558.452 on 6 September 2019.

The questionnaires were distributed to 287 physicians in physical or online format, email and Google Forms®, respectively. Physicians who agreed to participate in the research signed the Informed Consent Form.

Questionnaires

The first questionnaire (Table 1), "Demography and Characteristics of the Doctor" by Fady Daniel⁵, uses eight questions about personal characteristics, like age, gender, and marital status, and questions about the profession, like medical specialty, years of medical practice, practice in public or private institutions or both, and number of weekly appointments.

Table 1 - Demographics and Characteristics of Participants

Gender: FM Age: _____ CRM: _____
 Marital Status: Single Married Divorced Widower
 Medical Specialty_____

Medical Practice: PrivatePublic

Years of practice: <5, 5-10 10-15 15-20 >20 years

Number of weekly appointments: <10 10-20 20-40 40-60 >60

The second questionnaire (Table 2), "The Use of WhatsApp® in the Doctor-Patient Relationship, published in Revista Bioética⁹, has 10 questions about the use of the app and its frequency, its purposes, the advantages and disadvantages, as well as, a matter of ethical opinion. An extra question was added about methods to avoid unwanted communication, the question is based on the questionnaire by Fady Daniel⁵.

Table 2 - Use of the application, its purposes and professional opinion

1. Do you make use of the WhatsApp® app with your patients?
Yes No
2. How often do you use WhatsApp® with your patients during the week?
1 time 2 times 3 times Others. Quote the quantity
3. Do you have an exclusive cell phone to assist your patients via WhatsApp®?
Yes No
4. Do third parties have access to the cell phone you use to communicate with your patients? Yes No
Don't know answer
5. Do you feel comfortable using this means to communicate with your patients?
Yes No It depends. Why?
6. Are there situations where you prefer to use WhatsApp®? Wich are?
Emergencies Severe disease patients Post operation Patients with chronic diseases Clarification of doubts Others. Which are?
7. In your opinion, what are the advantages of WhatsApp® in doctor-patient communication?
8. In your opinion, what are the disadvantages of WhatsApp® in doctor-patient communication?
9. Do you think the use of WhatsApp® between doctor and patient is appropriate from an ethical point of view?
Yes No Don't know answer
10. Have you ever used any method to avoid unwanted WhatsApp® communication with patients?
Yes No If so, which one?

The third (Table 3), from the validated Australian questionnaire, "Appropriate Online Doctor-Patient Interaction"⁴ use three questions about whether, in proper training, the doctor would feel comfortable to make an appointment through WhatsApp® and present online content about himself and his services, in addition to a question about whether the doctor believes it is always appropriate to interact professionally with patients through the app. This last questionnaire aims to collect the opinion of their disposition to certain attitudes if there was prior training for this.

Table 3 - Appropriate online interaction

1. With proper training, would you feel free to make an appointment with a patient through WhatsApp®?
Yes No Don't know answer
2. With proper training, would you feel comfortable presenting online content about yourself and services to patients?
Yes No Don't know answer
3. Is it always appropriate for a doctor to interact with his patients professionally through WhatsApp®?
Yes No Don't know answer

Data Collection and Analysis.

All information was recorded in an Excel® spreadsheet and a descriptive analysis was obtained, followed by a bivariate analysis to detect statistical associations between the use or not of the application with the variables gender and specialty. A value of $p=0.05$ was considered statistically significant.

RESULTS

Forty-seven physicians (out of 287 - 16.37%) agreed to participate in the study, 63.8% (30) were men, the average age of the participants was 53 years (33 to 73years, 10.8 years). Participants were distributed quite equally in clinical (55.31%, 26) and surgical (44.68%, 21) specialties, including 23 different

specialties, the most frequent was psychiatry (10.6%, 5) and gynecology and obstetrics (8.5%, 4). The medical practice was equally public and private (91.48%, 43), in which 82.97% (39) practice medicine in both types of systems. Most participants have been practicing medicine for more than 20 years (74.46%, 35), and about 40% (19) perform 20 to 40 visits per week (Table 4).

Table 4 - Demography and Characteristics of the Doctor (n = 47)

Demography and Characteristics	Participants n (%)
Age (years), average (SD)	53 (10.8)
Gender	
Female	17 (37.17)
Male	30 (63.82)
Marital Status	
Married	30 (63.82)
Divorced	11 (23.4)
Single	5 (10.63)
Widowed	1 (2.12)
Medical Specialty	
Clinic	26 (55.31)
Surgery	21 (44.68)
Medical Practice	
Private	43 (91.48)
Public	43 (91.48)
Private and public	39 (82.97)
Only private	4 (8.51)
Only public	4 (8.51)
Years of Practice	
<5 years	0 (0)
5 to 10 years	2 (4.25)
10 to 15 years	7 (14.89)
15 to 20 years	3 (6.48)
>20 years	35 (74.46)
Number of Weekly Appointment	
<10	5 (10.63)
10 to 20	9 (19.14)
20 to 40	19 (40.42)
40 to 60	8 (17.02)
>60	6 (12.76)
Use WhatsApp®	
Yes	38 (80.85)
No	9 (19.14)

A total of 80.85% (38) of physicians claim to use WhatsApp® for communication with patients. (Table 4) These participants

answered the other nine questions in the questionnaire "The Use of WhatsApp® in the Doctor-Patient Relationship", in which 19.14% (9) who denied using WhatsApp® were directed to the third questionnaire and did not answer the remaining nine questions.

A frequency of using one to five times a week was reported by 44.73% (17). About 23,6% (9) use daily. Other types of frequency were also mentioned, such as only in the pre and postoperative period. As for having an exclusive cell phone, only 10.5% (4) stated the behavior. Also, 18.4% (7) admitted that third parties have access to the cell phone they use to communicate with patients.

Table 5 - The Use of WhatsApp® in the Doctor-Patient Relationship (n = 38)

Demography and Characteristics	Participants (%)
Frequency of use a week	
1 to 5 times	17 (44,73)
6 to 10 times	5 (13,15)
Daily	9 (23,68)
Has exclusive cell phone	
Yes	4 (10,5)
No	34 (89,47)
Third parties have access to cell phone	
Yes	7 (18,42)
No	31 (81,57)
Feel comfortable using the app	
Yes	27 (71)
No	6 (15,78)
Depends on the situation	5 (13,15)
Preference situations (N=36)	
Clarification of doubts	29 (80,55)
Patients with chronic diseases	11 (30,55)
Postoperative	10 (27,77)
Emergencies	10 (27,77)
Patients with serious diseases	6 (16,66)
Believe that be appropriate, from an ethical point of view, the use of the application	
Yes	30 (78,94)
No	3 (7,89)
Don't know answer	5 (13,15)

36 (76.5%) responded about preferences for using the app. Clarification of doubts was the situation that physicians most reported as a preference for use (80.5%, 29), followed by patients with chronic diseases (30.55%, 11) and emergencies (27.7%, 10). The participants listed several advantages (Table 6), mainly about the speed and agility of communication (41.66%, 15) and the ease in clarifying simple doubts of patients (19.4%, 7). Regarding the disadvantages (Table 6), 30.5% (11) complained about the abuse by patients, and that many want to resolve complex issues that need consultation (25%, 9). Errors in understanding the orientations (11,1%, 4) and unnecessary situations were also reported (5,5%, 2). Methods to avoid unwanted communication were used by

42% (16) of physicians, such as advising the patient not to use routinely or on the ethical limits of this type of communication, or not to respond and block contact.

Despite the number of disadvantages listed, only 15.78% (6) said they did not feel comfortable using this means of communication. The majority (78.94%, 30) believe that, from an ethical point of view, the use of WhatsApp® with patients is appropriate (Table 6).

Table 6 - Advantages, Disadvantages and Methods to Avoid Unwanted Communication.

Advantages (N=36)	Participants (n%)
Quick info	15 (41,66)
Clarify simple doubts	7 (19,44)
Therapeutic bond	4 (11,11)
Reply when to can	4 (11,11)
Proximity and ease of contact	3 (8,33)
Avoid phone calls and messages with a secretary	2 (5,55)
Sending images and exams	2 (5,55)
There are no advantages	2 (5,55)
Advantages only for the patient	1 (2,77)
Urgent orientations	1 (2,77)
Avoids early going to the health service	1 (2,77)
Comfort in knowing what the doubt is	1 (2,77)
Disadvantages (N=36)	
Abuse of use	11 (30,5)
Patient want to resolve complex issues	9 (25)
Error in understanding the orientations	4 (11,11)
There are no disadvantages	4 (11,11)
Patient does not know how to wait	3 (8,33)
Loss of medical confidentiality	3 (8,33)
Potential typos	2 (5,55)
Loss of privacy	2 (5,55)
Unnecessary situations	2 (5,55)
Spending extra time to work out a response	1 (2,77)
Possibility of delay in viewing the message in an emergency situation	1 (2,77)
Risk of neglecting a potentially serious illness	1 (2,77)
Used methods to avoid unwanted communication (N=38)	
Yes	16 (42,1)
No	22 (55,89)

All study participants answered the third questionnaire about their willingness to take certain attitudes if there was adequate training, where 76.5% (36) said they felt comfortable making an appointment via WhatsApp® if there was previous training. As for presenting online content about yourself and services to patients, the distribution was equal, with 46.8% (22) feeling at ease. 11 (23.4%) believe that it is always appropriate for a physician to interact with his patients professionally through WhatsApp®, 61.7% (29) disagree and 14.89% (7) did not know how to answer.

Fisher's exact test was used to associate the type of medical specialty (clinic or surgery) with the use or not of the application, and no statistical difference was observed ($p=0.48$). The same method was used to analyze the association between gender and the use or not of the application with statistical difference also ($p=0.45$). It was not possible to make other associations. (Table 7)

Table 7- Influence of medical specialty and gender in the use of WhatsApp® communication?

Variable	Total (n = 38)	Use	Don't use	Value p
Specialty				0.48
Clinic	26	22	4	
Surgery	21	16	5	
Gender				0.45
Female	17	15	2	
Male	30	23	7	

DISCUSSION

This study revealed that most participants are in favor of using WhatsApp® to communicate with the patient. This data is similar to other Brazilian studies^{2,9} and other countries, which understand that this type of practice can improve care and increase adherence to treatments⁵, advantages highlighted by the physicians in this study. Several participants also commented on how the use of WhatsApp® avoids unnecessary phone calls and messages, favoring the professional's available time, as he can choose the appropriate time to respond to the message.

However, given the facilities provided by this app, several instances of abuse of use and time, resulting in an invasion of the physician's privacy, were reported by 41.6% (15). These behaviors led physicians to adopt methods to avoid unwanted communication (42.10%, 16), such as restricting the time or clarifying the limits to the patient, until blocking or not responding.

Several disadvantages that have been listed suggest a profile of insecurity, as 25% (9) reported situations that could result in legal issues, such as loss of confidentiality and error in understanding the information. Currently, CFM clarifies its position in establishing constant surveillance and evaluation of the

techniques used in telemedicine, and whether they correspond to the quality of communication and preservation of the required professional secrecy¹⁰. However, WhatsApp® is an app used by most Brazilian physicians^{2,3}, and since this is a tool that does not guarantee data protection, making data subject to lose or exposure, it is understood that this quality and preservation of confidentiality are not being followed. When 18% (7) admit that third parties have access to the cell phone, the vulnerability increases dramatically, since this exposure comes from the doctor and not the patient. The preservation of messages for the knowledge of third parties is the responsibility of both. Access by third parties risks a breach of confidentiality, as there is no express authorization for disclosure to a third party or framing a legal duty or just cause¹¹, as expressed by art. 73 of the current Medical Code of Ethics⁸. Therefore, the techniques currently used do not fit the ideal safety standard, which exposes the medical profession to a state of vulnerability.

There is a need to thoroughly investigate the patterns of use of these new means of communication to establish the standardization of the use of these applications and other techniques in telemedicine already so widespread among Brazilian physicians.

CONCLUSION

The physician's perception presented in this study demonstrates that the use of the application offers several advantages and benefits, which translate into speed and ease in the routine. At the same time, situations arise that cause insecurity among professionals, ethical dilemmas, and abuse of use by the

patient. Still, most of the participants find the use of WhatsApp® ethical and appropriate and feel comfortable using the application. Therefore, this information reinforces the need for regulation and consensus on how physicians should behave online, especially when 76.5% (36) reported that they would feel more comfortable if there was prior training.

REFERENCES

1. Lievens F. Da telemedicina à saúde digital. Rev APM [Internet]. 2018. [Cited 2022 Jan 15]; 52(706):36. Available from: <<https://www.associacaopaulistamedicina.org.br/assets/uploads/revista-apm/b5a32fa1b4451ecee797d697b56f474f.pdf>>.
2. Global Summit Telemedicine & Digital Health. Pesquisa Tecnologia e Saúde. Rev APM [Internet]. 2018 [cited 2022 Jan 15]; 52(706):16. Available from: <<https://www.associacaopaulistamedicina.org.br/assets/uploads/revista-apm/b5a32fa1b4451ecee797d697b56f474f.pdf>>.
3. Cello Health Insight. The Digital Health Debate: a report on how doctors engage with digital technology in the workplace [Internet]. 2015 [cited 2022 Jan 15]. Available from: <<https://www.cellohealthinsight.com>>.
4. Brown J, Ryan C, Harris A. How doctors view and use social media: a national survey. J Med Internet Res. 2014;16(12):e267.
5. Daniel F, Jabak S, Sasso R, Chamoun Y, Tamim H. Patient-Physician Communication in the Era of Mobile Phones and Social Media Apps: Cross-Sectional Observational Study on Lebanese Physicians' Perceptions and Attitudes. JMIR Med Inform. 2018;6(2):e18.
6. Bosslet GT, Torke AM, Hickman SE, Terry CL, Helft PR. The patient-doctor relationship and online social networks: results of a national survey. J General Internal Med. 2011;26(10):1168-74.
7. Almeida G. Falta de regulamentação atrasa uso de tecnologias. Rev APM [Internet]. 2018 [cited 2022 Feb 15]; 52(706):13-16. Available from: <<https://www.associacaopaulistamedicina.org.br/assets/uploads/revista-apm/b5a32fa1b4451ecee797d697b56f474f.pdf>>.
8. Conselho Federal De Medicina. Resolução nº 1.931, de 17 de setembro de 2009. Código de Ética Médica. Brasília, DF: Conselho Federal de Medicina; 2010.
9. Leão CF, Coelho ME, Siqueira AO, Rosa BA, Neder PR. O uso do WhatsApp na relação médico-paciente. Rev Bioét. 2018;26(3):419-9.
10. Conselho Federal De Medicina. Resolução CFM nº 1.643, de 07 de agosto de 2002. Define e disciplina a prestação de serviços através da telemedicina [Internet]. Diário Oficial da União, Brasília, DF; 2002 Ago 26, nº 164; Seção I: 205. [cited 2022 Feb 15]. Available from: <<https://sistemas.cfm.org.br/normas/visualizar/resolucoes/BR/2002/1643>>.
11. Grinber M. Bioética e troca de mensagens por aplicativo WhatsApp sempre alerta na palma da mão. Arq Bras Cardiol: Imagem cardiovasc. 2018;31(3):126-29.