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Use of Social Networks by General Surgeons. Results of the National Survey of the Spanish Association of Surgeons[☆]



Antonio Morandeira Rivas,^a Jerónimo Riquelme Gaona,^a Mario Álvarez Gallego,^b Eduard María Targarona Soler,^c Carlos Moreno Sanz^{a,*}

^a Servicio de Cirugía General y del Aparato Digestivo, Hospital General La Mancha Centro, Alcázar de San Juan, Ciudad Real, Spain

^b Servicio de Cirugía General y del Aparato Digestivo, Hospital Universitario La Paz, Madrid, Spain

^c Servicio de Cirugía General y del Aparato Digestivo, Hospital de la Santa Creu i Sant Pau, Barcelona, Spain

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ABSTRACT

Introduction: The use and utility of social media (SM) among Spanish general surgeons is unknown.

Methods: Between October and December 2017 an online survey was carried out to the members of the Spanish Association of Surgeons, in which data on the profile of use and opinion on the usefulness of SM were collected.

Results: 360 valid responses were obtained, 310 from surgeons who had an active SM profile. The most popular networks were: Facebook (86%), LinkedIn (61.6%), YouTube (60.6%) and Twitter (54.2%). LinkedIn and Twitter stood out as the most used SM for professional purposes. Surgeons with a SM profile were younger (42.4 ± 11 years versus 51.6 ± 8 years; $P < .001$). Gender did not show influence on presence in SM. The majority of respondents have profiles in more than one network (3.6 ± 1 accounts) and 73.5% reported daily access to them; 19.7% of the surgery departments to which the respondents belong have a SM account. Among SM utilities in the professional field, training activities (87%) and connectivity among professionals (84%) were the most outstanding; 14.1% of respondents use SM to interact with patients.

Conclusions: SM is useful as a tool for the acquisition, updating and dissemination of scientific knowledge, also proving valuable as a new form of interaction among surgeons. Other issues such as privacy or surgeon-patient relationship represent a barrier to its use.

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* Corresponding author.

E-mail address: cmsurgery@hotmail.com (C. Moreno Sanz).

Uso de las redes sociales por parte de los cirujanos generales. Resultados de la encuesta nacional de la Asociación Española de Cirujanos

RESUMEN

Palabras clave:
Cirugía general
Redes sociales
Web 2.0
Internet

Introducción: Se desconoce el uso y utilidad de las redes sociales (RR. SS.) entre los cirujanos generales españoles.

Métodos: Entre octubre y diciembre de 2017 se realizó una encuesta *online* a los socios de la Asociación Española de Cirujanos, en la que se recogieron datos de perfil de uso y de opinión sobre RR. SS.

Resultados: Se obtuvo respuesta de 360 cirujanos, de los cuales 310 tenían presencia en RR. SS. Las redes más populares fueron: Facebook (86%), LinkedIn (61.6%), YouTube (60.6%) y Twitter (54,2%). LinkedIn y Twitter destacaron como las RR. SS. más empleadas con fines profesionales. Los cirujanos con presencia en RR. SS. eran más jóvenes ($42,4 \pm 11$ años frente a $51,6 \pm 8$ años; $p < 0,001$), existiendo a menor edad mayor frecuencia de acceso a las mismas. El género no mostró influencia sobre la presencia en RR. SS. La mayoría de los encuestados tiene perfil en más de una red ($3,6 \pm 1$ cuentas) y el 73,5% comunicó acceder a ellas diariamente. El 19,7% de los servicios de cirugía al que pertenecen los encuestados tiene perfil en RR. SS. Entre las utilidades profesionales destacan las actividades formativas (87%) y el contacto con otros profesionales (84%). El 14,1% de los encuestados utilizan RR. SS. para relacionarse con los pacientes.

Conclusiones: Las RR. SS. son útiles para la divulgación de información sobre eventos científicos y actividades formativas, la actualización y adquisición de conocimientos y la comunicación entre profesionales. Aspectos como la privacidad o la relación con los pacientes representan una barrera en el uso de RR. SS.

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Introduction

In recent decades, there have been numerous innovations in the world of communication, especially the Internet, which have improved communication and the availability of large amounts of information from around the world. These changes have come about quickly and their evolution has been accelerated. Thus, we have seen how web pages, with static content, have given way to what is now known as the 'social web' or 'Web 2.0', which allows users not only to consume content but also to create, modify and share content. In this context, social networking sites, or social media (SM), have influenced this evolution into a multidirectional model of communication.

Due mainly to the widespread dissemination of these advances and the development of devices that increasingly favor mobility, year after year the number of Internet SM users increases. Thus, although penetration data change every few years, it is estimated that in 2018 half of the world's population—some 4.021 billion people—use the Internet, and around 39%—some 2958 billion—are active SM users.¹ In addition, about 86% of Internet users between 16 and 65 years of age use SM in our country, which represents more than 19 million users.²

The fields of healthcare in general and general surgery in particular are not unaffected by the revolution in communication that SM have brought about, as they have created new forms of interaction with other medical professionals, patients and the general public. In this context, we can observe how interest in new communication technologies,

including SM, has been growing over the last 10 years among Spanish surgeons.³⁻⁶

The objective of this study was to determine the opinion of Spanish general surgeons about the usefulness of social media, with special interest given to their professional use.

Methods

This is a cross-sectional descriptive study conducted with a questionnaire designed by the Minimally Invasive Surgery and Technological Innovation (MIS&TI) division of the Spanish Association of Surgeons (AEC).

Questionnaire

A questionnaire was designed in an online format with 18 questions about demographic data, profile of use and opinion about the usefulness of SM ([Appendix A, addendum](#)). Members of the AEC were requested to participate in the survey, regardless of their interest or their use of social media, and they were sent an email with a link to access the website of the study. After 3 weeks, a reminder was sent to increase the number of participants. The data was collected, preserving the anonymity of the respondents.

Statistical Analysis

To summarize the data obtained, descriptive statistics were used: measures of central tendency and dispersion for

quantitative variables, absolute and relative frequencies for qualitative variables. The normality of the data obtained was verified using the Kolmogorov-Smirnov test. For the univariate analysis, the Student's t-test (quantitative variables) and Chi-squared test (qualitative variables) were applied. Finally, a binary logistic regression model was used to study the effect of the variables such as age and gender.

The statistical packages PASW v18.0 (SPSS Inc., Chicago, USA) and Epidat v4.2⁷ were used for the analyses. The differences between variables were evaluated with a statistical significance limit of $P < .05$.

Results

The questionnaire was sent to 4383 members of the AEC. After the two mailings, 1588 (36.7%) surgeons had read the email and 508 (11.6%) accessed the survey website. In the end, 360 complete answers were counted, which means a completion percentage of 70.9% and a response percentage of 8.2%.

Demographic Data

Out of the 360 surgeons who answered the survey, 54.2% were men and 45.8% women. The average age was 43.7 ± 11 years with an average of years worked, including residency, of 17.7 ± 11 years. As expected, a positive correlation was found between age and years of experience ($r=0.957$; $P < .001$). All the autonomous communities were represented, with the exception of La Rioja. The demographic characteristics of the surgeons who responded to the survey are summarized in Table 1. There were no differences between the percentage of respondents who belong to each autonomous community and the percentage of the total number of AEC members in the same community, except for Castile-La Mancha, which contributed 5.8% of the responses and represents 3% of the members of the AEC ($P=.003$). The percentage of residents was also similar, with work experience of less than 5 years in 17.8% of respondents, comparable with 18% of junior members in the AEC ($P=.915$). However, in terms of gender, differences were found, with a greater representation of women among the respondents compared to the total number of AEC members (45.8% versus 39.7%; $P \pm .021$).

Use of Social Networks

Responses were obtained from 310 surgeons with at least one profile in a social network and 50 (14%) with no profile. The latter were asked about the reasons why they did not use SM. The predominating reasons were not finding them interesting (62%) and privacy protection issues (60%). Other reasons included lack of time, fear of 'getting hooked', distrust in the veracity of the content, the difficulties to understand how it functions and the preference for other types of social relationship.

In the comparisons between the group of participants with a profile in SM and the group without a profile, we observed that the former were younger in age (42.4 ± 11 versus 51.6 ± 8 ; $P < .001$). In addition, a greater proportion of women had a profile in SM compared to men (90.3% compared to 82.6%;

Table 1 – Demographic Data.

Characteristics	n (%)
Number of participants (complete surveys)	360
Sex (M/F)	195 (54.2)/165 (45.8)
Mean age in yrs (SD; range)	43.7 (11; 24–68)
Age categories	
Younger than 35	101 (28.1)
35–44	73 (20.3)
45–54	123 (34.2)
Older than 55	63 (17.5)
Mean years of experience as a surgeon (SD; range)	17.7 (11; 1–43)
Experience categories	
Less than 5 yrs	64 (17.8)
6–10 yrs	57 (15.8)
11–20 yrs	89 (24.7)
21–30 yrs	102 (28.3)
31–40 yrs	42 (11.7)
More than 40 yrs	6 (1.7)
Autonomous community	
Andalusia	44 (12.2)
Aragon	16 (4.4)
Asturias	11 (3.1)
Canary Islands	13 (3.6)
Cantabria	1 (0.3)
Castile-Leon	21 (5.8)
Castile-La Mancha	21 (5.8)
Catalonia	56 (15.6)
Ceuta	1 (0.3)
Melilla	1 (0.3)
Valencia	36 (10)
Extremadura	7 (1.9)
Galicia	30 (8.3)
Balearic Islands	8 (2.2)
Madrid	52 (14.4)
Murcia	17 (4.7)
Navarra	6 (1.7)
Basque Country	19 (5.3)
La Rioja	0 (0)

$P=.034$). However, in the multivariate analysis, gender showed no influence on the likelihood of having or not a profile in SM as it was corrected by the age factor. Age remained the only explanatory variable in the regression model, indicating that at a younger age there was a greater likelihood that surgeons had SM accounts. In fact, the women in our sample had a lower mean age and fewer average years of experience than men (age 39.7 ± 10 versus 47.1 ± 11 [$P < .001$] and years of experience 14.1 ± 10 versus 20.8 ± 12 [$P < .001$]), which would explain the findings in the univariate analysis.

Within the 86.1% who used SM, most had profiles on more than one social network, with an average per user of 3.6 ± 1 accounts (range 1–7). As for the frequency of access to these accounts, 73.5% reported daily access, 17.7% weekly, 3.2% less than once a month and 5.5% less frequently. In this instance, a relationship with age was also observed, with more probability of consulting SM on a daily basis among younger surgeons, specifically for 2 age groups: under 35 (RR: 8.969 [95% CI: 3.523–22.832] $P < .001$) and surgeons aged 35–44 years (RR: 4.635 [95% CI: 1.884–11.402] $P < .001$).

The SM sites with the most users among the surgeons surveyed were Facebook (88.4%), LinkedIn (61.6%) and YouTube (60.6%), followed by Twitter (54.2%), Google+ (45.8%) and Instagram (37.7%) (Fig. 1). In the multivariate analysis, a higher probability of having a profile was observed on certain

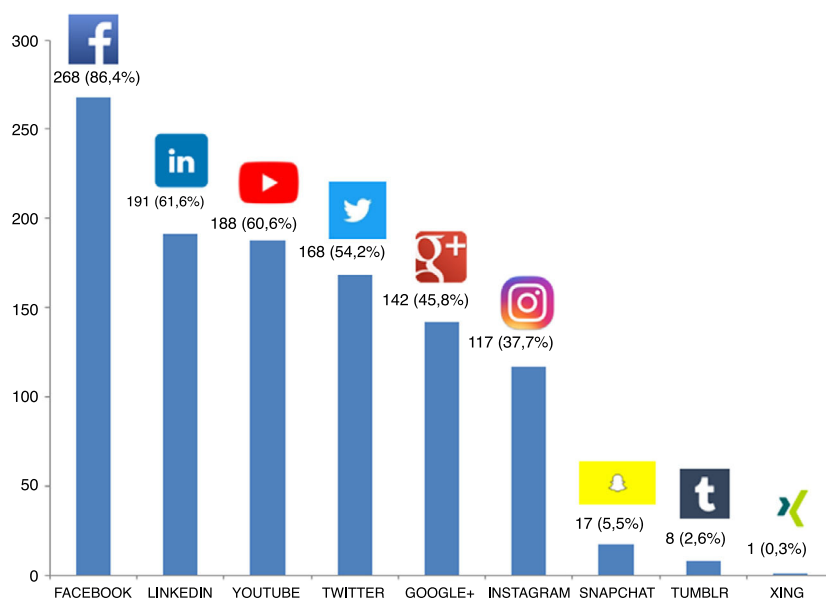


Fig. 1 – Number and percentage of users of the different SM among the participants.

networks like Twitter or LinkedIn according to gender, whose use was more widespread among men. As for age, certain SM, such as Facebook, Twitter, YouTube and Instagram, showed greater usage among younger surgeons, while others like LinkedIn had more usage among older surgeons (Table 2).

The type of use expressed by the participating surgeons was also different for the different SM analyzed. For instance, LinkedIn, Twitter and YouTube were for professional use; Instagram, Facebook and Google+ were for personal use; YouTube, Google+ and Twitter were cited for mixed use (Fig. 2).

When the survey participants were asked for their opinion about the utility of SM from a professional standpoint, 76.8% and 87.4% considered them useful or very useful for the acquisition of updated knowledge and to receive or share information about congresses, courses and other training activities (Table 3). 83.9% also considered SM useful or very useful to communicate with other professionals, while 80.6% considered them not very useful to communicate with patients. Other uses, such as self-promotion or sharing service/hospital achievements were also well valued by 63.5% and 73.2% of the respondents. Last of all, 56.1% found that SM have little or no use when looking for a job, although 57.1% would agree that their SM profile should be consulted during a job search.

The surgeon's surgery service has a social media profile in only 19.7% of the cases; 72.9% did not have it, and 7.4% did not know about it. The relationship through SM with department colleagues in 60.6% was reported as mixed (professional and personal) and 6.8% of participants reported having had a problem or negative comment in their work environment regarding their use of SM.

Most of the surgeons surveyed do not communicate with patients on SM (74.8%). On the other hand, 15.5% are followed by patients and 9.7% follow patients on SM. Eleven surgeons reported having problems with patients at some time through SM, representing 3.5% of surgeons with SM accounts who

answered the survey and 14.1% of surgeons who communicated with patients through this medium.

Discussion

This descriptive study is based on the opinions of 360 surgeons, all members of the AEC, about the utility of SM related to age and years of experience. As expected, and as has been observed in similar surveys, younger surgeons were more likely to have a social network account and accessed them more frequently than surgeons in the older age groups.⁸⁻¹⁰

Within the SM analyzed, Facebook had the most widespread use among the respondents, far above the rest, which is consistent with the widespread diffusion of this social network worldwide.¹ The networks most frequently used professionally were LinkedIn (a network mainly designed for professional use), Twitter (a microblogging application that has aroused great interest in recent years among medical professionals)^{5,11} and YouTube (a social network mainly based on content in video format).

Several studies in Europe and the United States have tried to determine the prevalence of the use of SM by surgeons, generally analyzing the percentage of professionals with an identifiable profile on SM among conference attendees or among members of scientific societies, placing this prevalence between 3.1 and 13.2% for Twitter and between 24 and 44.3% in the case of LinkedIn.¹²⁻¹⁵ The geographic scope, cultural differences and predominance of a public or private health-care system may explain the differences in the use of SM among the studies. In addition, the prevalence in these studies could be underestimated due to the difficulties in locating surgeons with common names or those who use pseudonyms on SM, which in many cases are difficult to find when they do not identify themselves as surgeons in their profile. Despite

Table 2 – Comparison Between Different Social Networks, Gender and Age Categories of the Survey Participants.

SM	Predictive variables	Beta coefficient	Beta error	P	Relative risk (95% confidence interval)
Facebook	Gender (female)	-0.402	0.364	.269	0.669 (0.328–1.365)
	Age <35	1.207	0.625	.054	3.344 (0.982–11.389)
	35–44	-0.141	0.517	.786	0.869 (0.316–2.393)
	45–54	-0.088	0.486	.856	0.916 (0.353–2.373)
	>55			.078	Ref.
Twitter	Gender (male)	1.035	0.255	.000	2.816 (1.709–4.642)
	Age <35	1.147	0.400	.004	3.148 (1.438–6.895)
	35–44	0.845	0.409	.039	2.327 (1.043–5.193)
	45–54	1.008	0.386	.009	2.740 (1.287–5.833)
	>55			.031	Ref.
LinkedIn	Gender (male)	0.794	0.262	.002	2.213 (1.324–3.700)
	Age <35			.000	Ref.
	35–44	1.167	0.341	.001	3.213 (1.647–6.267)
	45–54	1.421	0.313	.000	4.141 (2.241–7.653)
	>55	1.226	0.424	.004	3.407 (1.484–7.823)
YouTube	Gender (male)	0.565	0.254	.026	1.760 (1.071–2.893)
	Age <35	1.004	0.399	.012	2.730 (1.248–5.972)
	35–44	0.337	0.401	.401	1.400 (0.638–3.072)
	45–54	0.371	0.375	.323	1.449 (0.694–3.023)
	>55			.049	Ref.
Google+	Gender (male)	0.434	0.245	.077	1.544 (0.955–2.496)
	Age <35	0.363	0.384	.344	1.438 (0.678–3.052)
	35–44	0.321	0.290	.269	1.378 (0.780–2.434)
	45–54	-0.332	0.329	.313	0.718 (0.377–1.367)
	>55			.180	Ref.
Instagram	Gender (female)	0.089	0.254	.728	1.093 (0.664–1.799)
	Age <35	1.144	0.421	.007	3.139 (1.375–7.168)
	35–44	0.888	0.434	.041	2.431 (1.039–5.691)
	45–54	0.013	0.426	.976	1.013 (0.439–2.335)
	>55			.001	Ref.

Ref.: reference category.

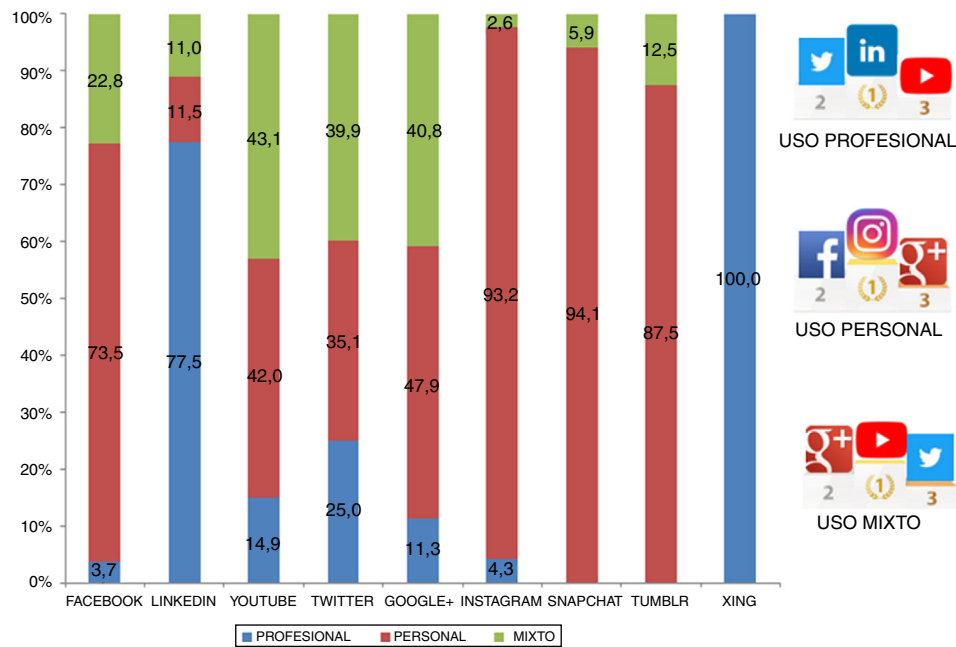


Fig. 2 – Type of use for the different social media networks by the surgeons surveyed. One must consider the low number of users in some SM when interpreting the results.

Table 3 – Responses to the Question: For Professional Use, in What Way Are Social Media Useful?

	Not very useful, n (%)	Useful, n (%)	Very useful, n (%)
Acquisition and updating knowledge	72 (23.2)	151 (48.7)	87 (28.1)
Information about conferences, courses and other training activities	39 (12.6)	145 (46.8)	126 (40.6)
Communicating with other medical professionals	50 (16.1)	175 (56.5)	85 (27.4)
Communicating with patients	250 (80.6)	51 (16.5)	9 (2.9)
Job search	174 (56.1)	111 (35.8)	25 (8.1)
Promoting work of department/hospital	83 (26.8)	159 (51.3)	68 (21.9)
Self-promotion	113 (36.5)	155 (50)	42 (13.5)

these limitations, when follow-up studies have been conducted using this methodology, a progressive increase in the use of SM by surgeons has been observed.¹⁶

The professional use of SM highlighted by the surgeons of our survey includes the dissemination of information about scientific events and training activities, updating and acquiring knowledge and communication among professionals. These results agree with the increasing use of SM at congresses and meetings, providing greater diffusion of shared knowledge by the attendees, which is amplified globally to reach other surgeons not present at the event, other healthcare professionals, researchers and even patient groups. This facilitates extended debates beyond the duration of the congress and provides the medical society organizing the event with greater visibility. In this field, Twitter has been the most successful tool presented in recent years, which we can verify with the increasing number of users, tweets and impressions (number of users who have potentially seen a tweet) at different scientific meetings, including national meetings and conferences of the AEC.^{6,17}

Regarding the usefulness of SM as a tool for acquiring and updating knowledge, it is worth mentioning the increasingly frequent presence of different medical societies and scientific journals on SM. Certain initiatives have aroused great interest, such as 'visual abstracts' (illustrated and concise summary of an article, recently included in the AEC journal), 'journal clubs' (where recent scientific articles are critically evaluated) or the creation of surgical communities in which different aspects are debated about a specific field of surgery. These initiatives promote the dissemination of information and contact between professionals, which could be beneficial for both treatment and research.¹⁸⁻²² In addition, in academia, the tools of the social network are already part of the new indicators or alternative metrics (altmetrics), which are presented as an alternative to assess the impact of scientific activity.²³

Nevertheless, as with the rest of the scientific content available on the Internet, there are problems regarding the reliability of the information published on SM. In the case of surgery, an example is found in the video content available to describe details in surgical technique, which have proliferated increasingly in recent years on different platforms, especially YouTube. Several authors have called attention to the low quality of the most viewed videos about certain pathologies or surgical procedures. This is a serious problem, mainly for younger surgeons with less experience, who may have difficulties detecting these deficiencies.²⁴⁻²⁶ For this reason, in addition to working on one's capacity for critical analysis, it

is recommended to use training videos from official channels or accounts of renowned medical societies, institutions or professionals, as well as specific channels or portals for certified education in surgery.

Finally, although SM seem to favor communication among surgeons, their usefulness in the relationship between surgeons and patients is not so clear, with up to 80.6% of respondents considering SM not useful in this regard. This perception of less utility could be related to the ethical and privacy conflicts that may arise when transferring the doctor-patient relationship to the social network, highlighting this type of problems among the most frequent reasons for not using SM in the group of surveyed surgeons who did not have a social network account.^{9,10} All these drawbacks, which involve ethics and medical professionalism, are the most controversial side of SM.^{8,27} In fact, there are several scientific societies that have proposed guidelines for their professional use. Thus, some recommendations that can help us have a credible professional profile include, among others: identification as a medical professional, preservation of doctor-patient confidentiality, quality content, correct grammar use, respect for others, and remembering that what is published endures over time.^{28,29} In addition, in the field of medical education, the difference in SM use by age groups causes an interesting paradox, in which instructors need to supervise and advise residents on the correct usage of a tool they themselves use with less ease than the residents they are teaching.^{30,31}

Although this topic is very current, this study is not without limitations. On the one hand is the low percentage of completely answered questionnaires, which is common in email surveys.^{9,10,27} However, the fact that 86% of the surgeons who responded had a social media profile suggests that only the most active SM users answered the survey. Contrary to what one might suppose, at a time when our WhatsApp produces a constant traffic of messages and when we have a free moment we check our Facebook or Instagram, the professional use of SM is still not widespread among Spanish surgeons. Most likely, the development of tools and professional profiles that are more defined or specific to our area of knowledge will make these resources an essential tool for the access and exchange of quality information in surgery. On the other hand, our results are not useful to determine the penetration of SM among AEC members, although they do provide us with the opinion of a group of surgeons representing practically all of the Spanish autonomous communities, with a percentage of resident and attending surgeons comparable to the population of Spanish surgeons. In addition, we have obtained the opinion of surgeons without

SM profiles by including specific questions in the questionnaire for this group of participants. Lastly, this study has focused on commonly used SM with dissemination among the general population, so it does not provide information about the use of thematic SM like ResearchGate or messaging applications like WhatsApp, Telegram or Line, which share many characteristics that define a social network and are considered as such by many users.

Conclusion

Social media are a great tool for the diffusion and acquisition of current knowledge that have also become a new means of interaction among surgeons. The development of these communication systems requires adaptation by surgeons and is accompanied by new challenges that affect the patient-physician relationship, making strategies necessary to promote commitment with their ethical and professional use.

Conflict of Interests

The authors have no conflict of interests to declare.

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Addendum. Questionnaire About the Use of SM Among General Surgeons in Spain

1. Age: _____
2. Gender:
 - Male
 - Female
3. Including residency, how many years have you been working as a surgeon? _____
4. Autonomous Community:
 - Andalusia
 - Aragon
 - Asturias
 - Balearic Islands
 - Canary Islands
 - Cantabria
 - Castile-La Mancha
 - Castile-Leon
 - Catalonia
 - Valencia
 - Extremadura
 - Galicia
 - La Rioja
 - Madrid
 - Murcia
 - Navarra
 - Basque Country

- Ceuta
 - Melilla
5. Do you have a profile in a SM platform?

- Yes (continue to question 6)
- No (continue to question 16)

6. How often do you check your SM account(s)?

- Every day
- At least once a week
- At least once a month
- Less frequently

7. On which SM sites do you have an account that you use? (check only one option per site)

Site	Personal Use	Professional Use	Mixed Use	No Use/No Account
Facebook	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Twitter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instagram	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Snapchat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YouTube	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tumblr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Google+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LinkedIn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Xing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. For professional use, in what way are social media useful? (mark only one)

	Not Very Useful	Useful	Very Useful
Acquisition and updating knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information about conferences, courses and other training activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communicating with other medical professionals (residents, attendings, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communicating with patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Job search	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Promoting work of your department or hospital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self-promotion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Can you think of other uses other than those above?

10. Does your surgery service have an account on social media?

- Yes
- No
- Don't know

11. What relationship do you have with your department colleagues on SM?

- Only professional (we exclusively discuss work topics, training, etc.)
- Only personal (we avoid discussing work or training)
- Mixed

12. Have you ever had a problem or received a negative comment from someone in your department because of your use of SM?

- Yes
- No

13. Do you follow on SM or are you followed by a patient that you have treated? (exclude those who are colleagues from work, including doctors, nurses, nursing aides, orderlies, etc.)

- I have no relationship with patients
- I am followed but do not follow (unidirectional)
- I follow but am not followed (unidirectional)
- I follow and am followed (bidirectional)

14. Have you ever had a problem with patient because of your use of SM?

- Yes
- No

15. If in the future you are doing a job search, do you agree with your profile being consulted on social media during the selection and interview process? (Continue on to question 17)

- Yes
- No

16. Why do you not have a SM account or do not use SM networks? (you may mark more than one answer) (Continue to question 17)

- To protect my privacy
- I have no time
- I do not want to get 'hooked'
- I am not interested/amused by them
- I do not understand how they work/I think they are very complicated
- Other: _____

17. Comments:

18. We invite you to collaborate with a personal interview. If you are interested, please provide your email address, telephone or user name in Twitter or Facebook. We will be in touch to set up an appointment and the medium for the interview.

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