

The use of social media for professional purposes by healthcare professionals: the #intEHRAct survey

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Social media (SoMe) represents a medium of communication in everyday life and has gained importance for professional use among clinicians. In the #intEHRAct survey, we aimed to describe the use of SoMe by the healthcare community in a professional setting. The EHRA e-Communication Committee and the Scientific Initiatives Committee prepared a questionnaire and distributed it via newsletters, Twitter, LinkedIn, and Facebook. The survey consisted of 19 questions made on an individual basis and collected anonymously. Two hundred and eighty-five responders from 35 countries (72.3% male, age 49 ± 11 years old) completed the survey. Most respondents (42.7%) declared to use SoMe as passive users while 38.3% and 19.0% declared to share content on a non-daily and daily basis, respectively. The respondents estimated they spent a median of 5 (Q1–Q3: 2–10) h per week on SoMe. The most widely used SoMe was LinkedIn (60.8%), but the use of each platform was heterogeneous between countries. Among the advantages of SoMe, respondents indicated the chance of being updated on recent publications (66.0%), networking (48.5%), and the availability of rare or interesting cases (47.9%) as the most useful. Regarding the disadvantages of SoMe, the respondents underlined the loss of personal contact (40.7%), the inability to get ‘hands-on’ training (38.7%), and the lack of control regarding quality of scientific evidence (37.1%). Social media is increasingly used for professional purposes for scientific updating, networking, and case-based learning. The results of this survey encourage scientific societies, journals, and authors to enhance the quality, reach and impact of scientific content provided through SoMe.

Keywords

Healthcare education • Healthcare communication • Networking • Social media • EHRA survey

What's new?

- 18.5% of respondents use Social media (SoMe) exclusively for professional purposes, 17.5% only for private purposes, and 64.0% for both.
- Most respondents (42.7%) use SoMe passively while 38.3% and 19.0% share content on a non-daily and daily basis, respectively.
- The respondents estimate a median of 5 (Q1–Q3: 2–10) h per week on SoMe and 1 (Q1–Q3: 1–4) post per week.
- The most widely used SoMe for professional use are LinkedIn (60.8%), Twitter (55.1%), Facebook (49.5%), YouTube (28.3%), Instagram (24.7%), personal blogs (3.1%), and TikTok (0.5%).
- 60.2% of respondents indicated that their time spent on SoMe increase during congresses.
- 66% of respondents declared to use SoMe to keep updated on recent publications.

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Introduction

Social media (SoMe) represents a medium of communication and networking in everyday life. While SoMe has been widely used in private life since years, it also gradually gained importance for professional use among clinicians.^{1–3} Continuous education and training, but also new techniques are disseminated via SoMe.^{4,5} For the European Society of Cardiology (ESC) and the European Heart Rhythm Association (EHRA), particularly Twitter developed to be the leading and most widely used communication channel for science dissemination and professional exchanges/networking.⁶ In fact, SoMe editors are promoting new publications via a dedicated Twitter handle for all large ESC journals on a daily basis as several studies have documented the scientific impact of SoMe on journal and article metrics.^{7,8} Additionally, the EHRA e-Communication Committee is focusing on Twitter promotion and communication via the @EHRAPresident Twitter handle and recently published a practical guide for how to use Twitter in order to interact and participate as an electrophysiologist on SoMe.⁹

Despite this broad SoMe activity from EHRA to promote new publications from ESC journals (@ESCjournals, #EUROPACE, etc.), ESC conferences (#ESCCongress, #EHRA2021, #ESCDigitalSummit, etc.), and other ESC/EHRA activities (#DAS_CAM_2021, #EHRA_SMS¹⁰), the use of SoMe for professional purposes by healthcare professionals remains unclear. In the #intEHRAact survey, we aimed to describe the use and expectations of SoMe by the healthcare community in a professional setting.

Methods

The EHRA e-Communication Committee and the Scientific Initiatives Committee prepared a questionnaire on SurveyMonkey and distributed it between the 21st of May 2021 and the 3rd of July 2021. The official EHRA website, the EHRA newsletter as well as Twitter, LinkedIn, Facebook, and personal mailing lists were used to spread the survey. Physicians from different medical specialties were invited to participate.

The survey consisted of 19 questions in two blocks (see [Supplementary material online](#)):

- The first block consisted of six questions regarding personal information and demographics including gender, age, working position, working environment, and main specialty.
- The second block (13 questions) dealt with the use of SoMe for professional purposes, asking the respondents (1) which SoMe app they used, (2) how frequently they used SoMe, (3) what content they shared, (4) for what purposes they used SoMe, and (5) what the perceived advantages and drawbacks were.

Statistical analysis

Continuous variables were expressed as mean and standard deviation and categorical variables were presented as numbers and percentages. Comparisons between groups were performed using Student's *t*-tests or Mann–Whitney *U* tests for continuous variables as appropriate, and χ^2 test for categorical variables. Statistical analysis was performed using SPSS 25.0 for Windows (SPSS Inc., Chicago, IL, USA), and R (R Foundation for Statistical Computing, Vienna, Austria). Values of *P* < 0.05 (two-tailed) were considered as statistically significant.

Table 1 General characteristics of the responders of the intEHRAact survey

| | |
|-----------------------------------|------|
| Main work environment (%) | |
| University Hospital | 57.8 |
| Specialized public hospital | 16.3 |
| District/community hospital | 9.2 |
| Private hospital | 7.6 |
| Private practice | 2.8 |
| Public out-of-hospital clinic | 1.6 |
| Other | 4.7 |
| Current working position (%) | |
| Head of staff | 12.5 |
| Consultant | 45.2 |
| Fellow | 22.2 |
| General practitioner | 6.4 |
| Nurse | 3.2 |
| Other | 10.5 |
| Main specialty (%) | |
| Cardiology/electrophysiology | 57.3 |
| Cardiology/general | 15.0 |
| Cardiology/invasive | 5.6 |
| Cardiology/imaging | 4.5 |
| Cardiology/heart failure | 3.6 |
| Cardiology/intensive cardiac care | 3.2 |
| Internal medicine | 2.8 |
| Acute care | 1.2 |
| Other | 6.8 |

Results

Two hundred and eighty-five responders from 35 countries (72.3% male, age 49 ± 11 years old) completed the survey. Characteristics of respondents are shown in *Table 1*.

18.5% of the population declared to use SoMe exclusively for professional purposes, 17.5% only for private purposes, and 64.0% for both. Of those, 71.8% use the same accounts for both professional and private purposes, while 28.2% prefer to have separate accounts. Most respondents (42.7%) declared to use SoMe as passive users (i.e. without creating or sharing content) while 38.3% and 19.0% declared to provide content on a non-daily and daily basis, respectively. The respondents estimated a median of five (Q1–Q3: 2–10) h per week on SoMe based on each participant's phone recorded data (*Figure 1*). Among active SoMe users, the median number of posts per week was one (Q1–Q3: 1–4) post per week; *Figure 2*.

The most widely used SoMe for professional purposes was LinkedIn (60.8%), followed by Twitter (55.1%), Facebook (49.5%), YouTube (28.3%), Instagram (24.7%), personal blogs (3.1%), and TikTok (0.5%).

Similar results were noted when the respondents were stratified by age and working position (all *P* > 0.05), while the use of each different SoMe differed between each country. *Figure 3* shows the relative prevalence of active SoMe accounts stratified for each of the six countries with the most respondents (Italy, Sweden, Germany, Poland, Belgium, and France).

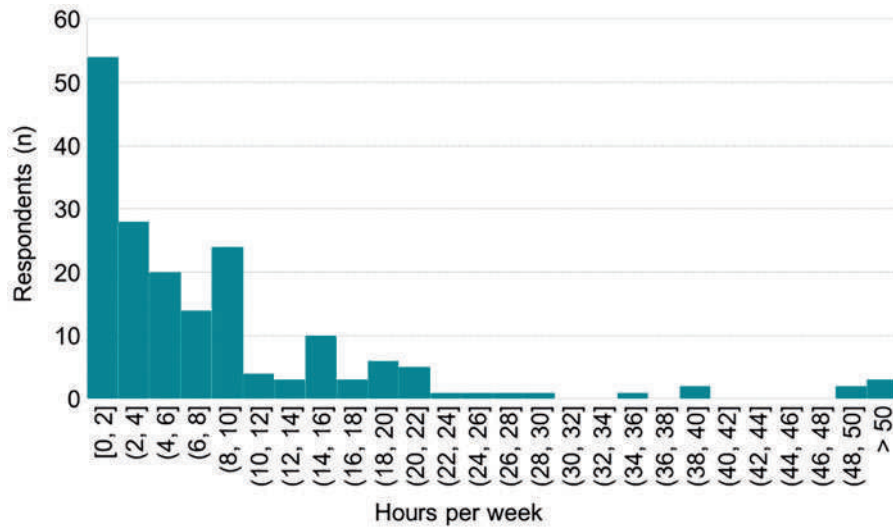


Figure 1 Hours per week spent on SoMe, according to the responders' mobile data (Pareto's distribution).

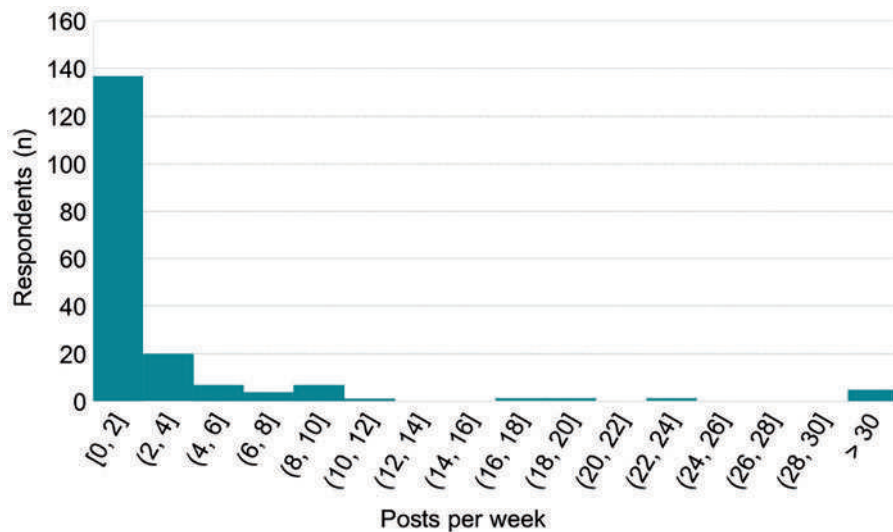


Figure 2 Number of original contents created on SoMe per week (Pareto's distribution).

Figure 4 shows the perceived advantages and drawbacks in using SoMe for professional purposes. On average, respondents indicated four different advantages and only two drawbacks. Among the advantages of SoMe, updating on recent publications was indicated by nearly two-thirds of respondents (66.0%) while updating on congresses either through online or on-demand sessions was indicated less frequently (38.1% and 25.3%; respectively). On the other hand, 60.2% of the population indicated that time spent on SoMe increased during congresses. 61.1% of the respondents preferred to follow congresses via SoMe when they have time (asynchronous) and 38.9% preferred to follow congresses via SoMe while they are

taking place (synchronous). Moreover, 45.5% of the population actively participated as a speaker in at least one digital/online congress (Figure 5).

Regarding the personal networking options that SoMe may offer (indicated as the second most frequently perceived advantage by 48.5% of our population), 15.2% said it is very difficult to manage networking through SoMe, 20.8% somewhat difficult, 28.6% neutral, 22.5% quite easy, and 12.3% very easy, demonstrating quite a heterogeneous response.

When describing potential disadvantages of SoMe, the respondents frequently underlined the loss of personal contact as detrimental

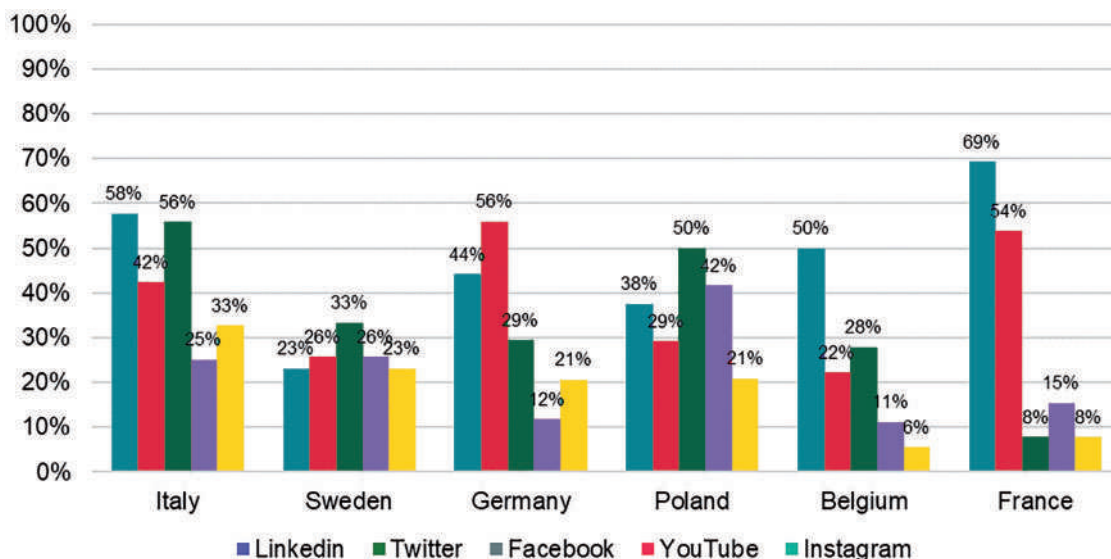


Figure 3 Relative prevalence of active accounts on each SoMe stratified for the six countries with the most responders (Italy 52, Sweden 39, Germany 34, Poland 24, Belgium 18, France 13).

from an educative point of view (40.7%), the inability to get ‘hands-on’ training (38.7%), and the lack of control regarding the quality of scientific evidence (37.1%).

Discussion

The #intEHRAct survey showed that most of the healthcare professionals were using SoMe both for professional and personal purposes. Interestingly, the data regarding time spent on SoMe platforms and active engagement can delineate two different archetypes of users (Figure 6). The first one, which represents most of our respondents, is mainly a passive user, who browses SoMe rarely engaging in an active manner or providing original content on a regular basis. This type of user is mainly on the left side of the distribution shown in Figure 1, averaging less than one hour per day of SoMe activity. The other archetype, which could be described as a ‘super-user’, is quite the opposite: he engages in regular discussion and provides content on a steady basis, spending a lot of time (even more than 30h per week) on SoMe. Although the actively involved SoMe users represent just a smaller proportion of all users, they catalyse attention, spread information, and may represent a ‘hub’ in the network he created on a specific platform. This may also raise some concerns regarding bias, the lack of control of the information and reliability in SoMe, which was also listed as a potential drawback by nearly one-third of our respondents. As a traditional peer-review (or any equivalent form of quality control) is non-existent in SoMe, a very active user could easily draw attention and focus the interest of the majority of (passive) users on specific papers or topics, regardless of the actual scientific validity of such evidence.¹¹ On the other hand, structured SoMe promotion of papers by journals may increase citation rates, which is currently tested in the randomized controlled trial #TweetTheJournal.⁶ International cardiac societies have initiated

activities to provide guidance and moderation through official channels and by involving internationally renowned Twitter ambassadors that can reliably provide good and solid scientific evidence.¹²

Social media represents an important communication tool, especially in the healthcare community.¹³ While LinkedIn was identified as the most frequently used SoMe platform overall, clear regional disparities regarding the use of different platforms were highlighted by this survey (Figure 3). This likely results in fragmented and reduced spread of information flows, which prevents the development of a broader international communication forum and network, if just one SoMe platform is used to distribute information. Therefore, an active effort should be made, especially by scientific society and committees in using different SoMe platforms, to help disseminate knowledge broadly.

Another issue worth of discussion is how the lack of a live contact, typical of SoMe, is perceived by clinicians. While managing a professional network through SoMe was not seen as cumbersome, most of the respondents indicated the loss of personal contact as detrimental from an educative point of view (40.7%) and the inability to get ‘hands-on’ training (38.7%) as major drawbacks in using SoMe. Particularly as a component of a hybrid approach consisting of face-to-face meetings, virtual conferences, and on-demand online sessions, SoMe provides a free platform for potential interaction and networking at least for some participants.¹⁴ Further implementation of hybrid methods of education, striving to engage participants in an active way, should therefore be a priority for the next years.

The results of this survey could also be helpful to improve the format and design of future conferences. Most of our respondents declared to actively engage with congresses through SoMe (Figure 5), but only 39% preferred to follow congresses live when they are taking place while the vast majority is more interested in following on-demand content at a timepoint when they have time available.

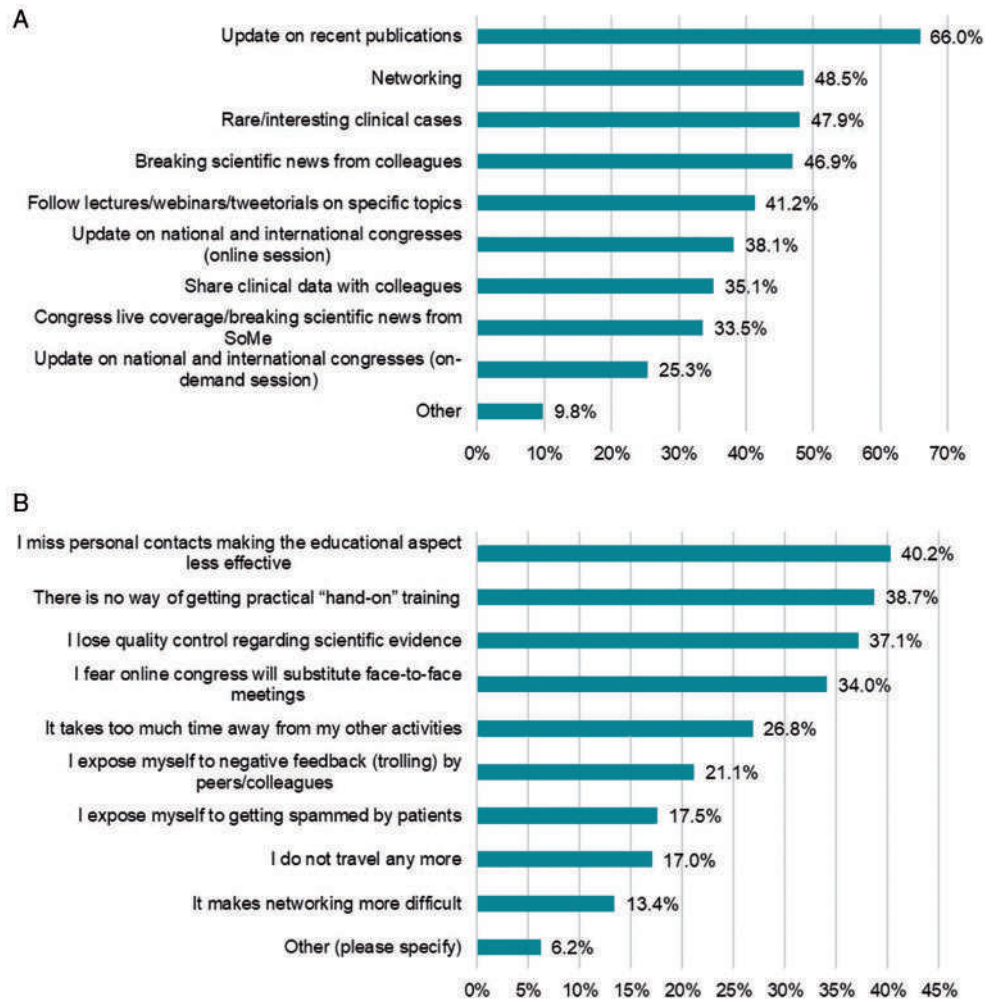


Figure 4 Perceived advantages (A) and drawbacks (B) of using SoMe for professional purposes.

How do clinicians follow congresses through SoMe?

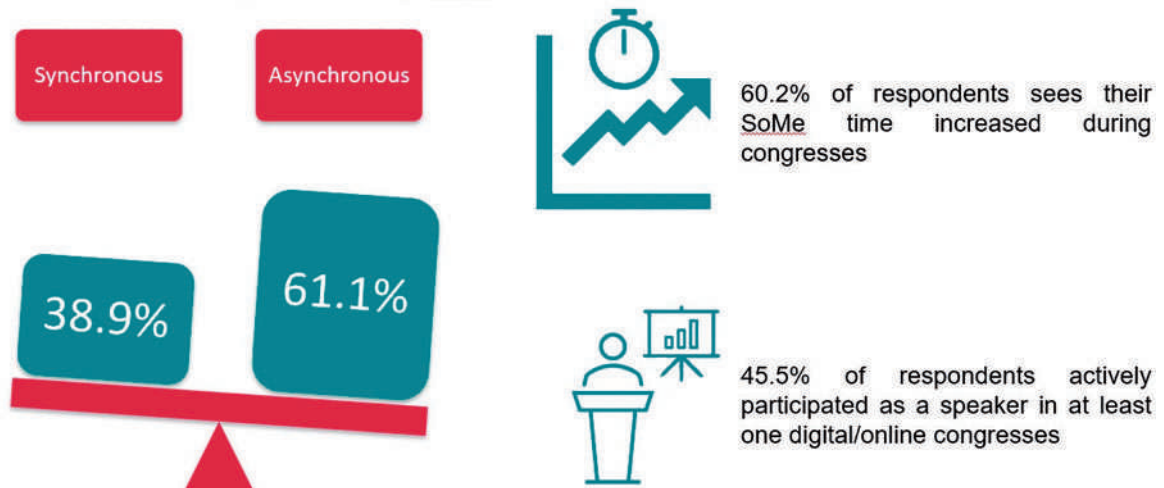
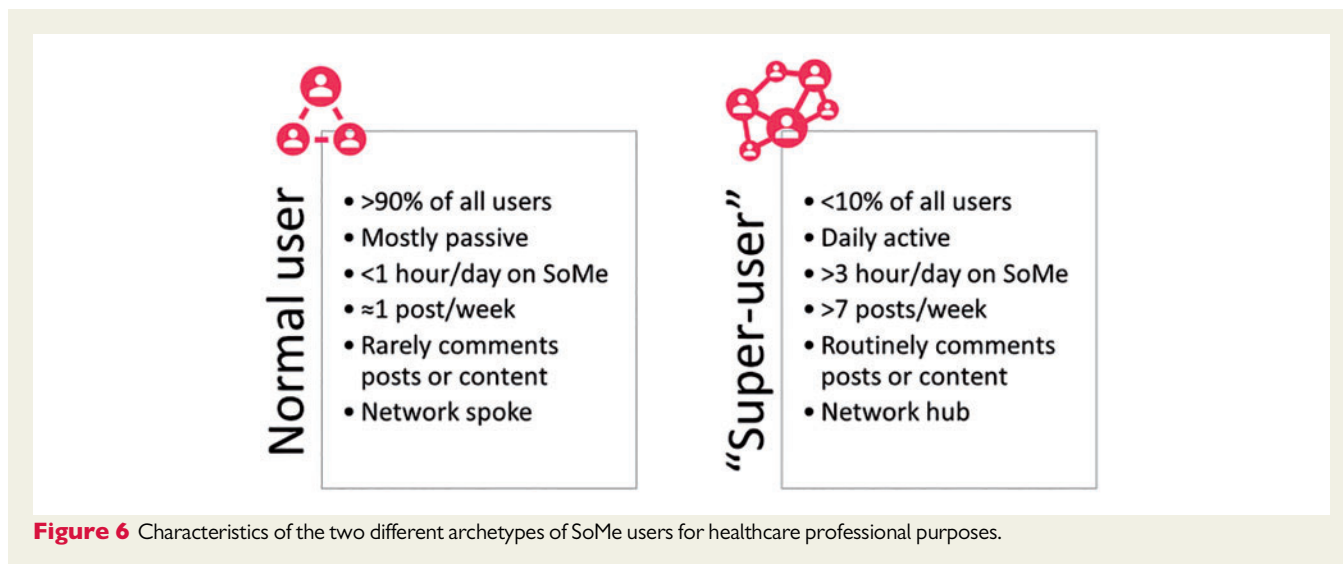


Figure 5 Infographic describing the relationship between SoMe and congresses according to the respondents.



Therefore, a hybrid approach with an on-demand program flanking the live sessions may improve a congress' reach and dissemination.

Limitations

The results might be biased by an overrepresentation of SoMe users as the survey was spread also through newsletters and webpages but mainly through SoMe. As such, there might be a responder bias that cannot be neglected. Moreover, the respondent's geographical distribution is focused on Europe with EHRA countries as the main source of replies. Therefore, caution should be made in generalizing the results of the present survey to other regional settings.

Conclusions

Social media is increasingly used for professional purposes by healthcare professionals. They allow fast scientific updates, networking, case-based learning, and enhancing the reach and impact of scientific congresses. Because SoMe is lacking quality control, scientific societies, journals, and authors altogether should learn how to use these tools in an ethical and scientific manner to improve peer education and culture dissemination.

Supplementary material

Supplementary material is available at *Europace* online.

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