



POINT OF VIEW

The professional use of Twitter to create a global pediatric intensive care community[☆]



El uso profesional de Twitter para crear una comunidad global de cuidados intensivos pediátricos

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The #SoMe have arrived

The social media (#SoMe) have become omnipresent. It is now difficult to imagine daily life without Twitter, Instagram, LinkedIn or Facebook. Just think about we routinely do with our smart phone: we keep in touch with family and friends, contact other people, and consume and/or create new contents.

From the professional perspective (understood as media utilization for things related to our profession), the medical community has gradually incorporated #SoMe, and our way of interacting is quickly changing. The #SoMe have created a new dimension, expanding their influence upon all those implicated in the healthcare system: from patients to physi-

cians, from clinicians to medical organizations, and from the general public to the healthcare institutions.

Science needs communication to spread and to be placed under scrutiny. In this regard, #SoMe may be a useful tool for distributing knowledge and favoring interaction, since they offer patients and healthcare professionals opportunities to generate, share or debate about available knowledge.¹

The #SoMe offer a broad range of possibilities, including the creation of a direct link between authors and their public. By sending a *tweet* (a 280-character message), we can contact the author of an article we have read today and receive his or her answer from the other side of the world in real time. It is not uncommon for online debates and discussions to start in this way. According to some authors such as Vinay Prasad – very active both in conventional media and in #SoMe – sending a *tweet* may be better than submitting a Letter to the Editor in a conventional scientific journal, since it is free, rapid, with no word count limitation, does not have to face journal acceptance or rejection criteria, and immediate responses can be elicited. This could help to narrow the gap between investigators and their audience (both general and academic), favoring discussion, spreading scientific knowledge and reducing the economic impact of subscription to journals.² The consequence of all this could be a

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more democratic and collaborative scientific environment, since such platforms moreover generate opportunities for networking activities and favor professional development and exchanges.³ It is therefore not surprising that the *big journals* have already included #SoMe among their editorial tools.

Intensive care medicine (including pediatric intensive care) has not been oblivious to introduction of the new technologies. The use of smart phone applications (*apps*) has become generalized in the routine practice of intensivists,⁴ and #SoMe have not been left behind in this regard. Many Spanish-speaking scientific societies in our field now have Twitter and Facebook profiles (@semicyuc, @lasecip, @SATIarg in Twitter). The humanization of intensive care has also gained a presence in Twitter through @HumanizalaUCI or @InnovaHUCI, with thousands of followers. In teaching and research, #SoMe serve as a basis for training, divulgation and discussion platforms such as @ventilacionmeca in Twitter / Mechanical Ventilation in Facebook. In 2019 we have seen how #SoMe can act as a starting point and link for global research projects such as #mechanicalpowerday (see www.mechanicalpowerday.com). This global prevalence study on mechanical power during the application of mechanical ventilation was originally referred to the adult critical population, though as a result of #SoMe interaction with pediatric intensivists, the pediatric population was also included in the study.

To tweet or not to tweet

Twitter, a #SoMe microblogging service created in 2006, is an attractive tool for healthcare professionals and organizations. Its versatility and accessibility are the best example of the rich interactions which #SoMe can allow. Elements such as specific content *hashtags*, real-time tweeting (*live-tweeting*) at congresses, *Twitter chats*, critical article reading clubs (*journal club*), clinical case contests or polls have become daily consultation tools for many physicians.⁴

The introduction of alternative impact measures (Altmetric® or PlumX®) and social media participation measures (Symplur®) is redefining the way in which we assess the impact of publications. We know that the more *tweets*

an article receives, the greater the number of citations it will have, and that the number of times articles are shared in Twitter during the first days after their publication may predict which of them will be widely cited.⁵ The incorporation of complementary functions such as *visual abstracts* (infographic summaries of the main findings of a study) to scientific *tweets* results in increased diffusion.⁶ Moreover, recent studies have found that scientific journals supported by Twitter or other #SoMe reach higher impact factors.⁷

The use of Twitter can also pose problems. It can have a negative effect upon the professionals that use it, the organization they work for, or on the patients they treat.⁸ Breaches in confidentiality and copyright infringements can imply legal problems. Thus, the professional use of #SoMe requires common sense and observation of the same ethical and deontological standards that apply to our routine practice. It is important to underscore that Twitter contents are always public, leave a permanent trace, and may pose problems if misused.⁹

In sum, while not without risks, the use of Twitter and other #SoMe is now strongly implanted in the intensive care setting. It is not difficult to imagine a scenario in which physical-presence congresses become a thing of the past, having been replaced by Twitter or other platform-based interactive discussion sessions. Indeed, the latest congress of the Global Sepsis Alliance in 2018 took place entirely online. Likewise, it does not seem unreasonable for intensive care medicine training through #SoMe to become accredited in the curricula of the participants (both students and lecturers) – facilitating access to knowledge and progress in our field.

The #PedsICU community

In population terms, pediatric critical illness is infrequent. Furthermore, not only are critically ill children few: pediatric intensivists are also limited in number. The creation of professional networks and the exchange of knowledge, establishing cooperative ties with our colleagues, is crucial for ensuring adequate development of our profession. The introduction of the hashtag #PedsICU in Twitter has contributed to establish a common communication and

Table 1 Relevant accounts and their contents related to the hashtag #PedsICU.

Account	Administrator (Twitter user name/country)	Type of activity
PICU Journal Watch (@PICJournalWatch)	Dr. Hari Krishnan Kanthimathiathan (United Kingdom/@harrychris)	Divulgation and discussion of relevant articles
PedsICU Journal Club (@PedsICU_JC)	Dr. Deanna Behrens (USA/@DeannaMarie208)	Journal club, discussion of relevant articles
PedsICUPoll (@PedsICUPoll)	Dr. Miguel Rodríguez-Rubio (Spain/@miguelrdgRubio)	Weekly polls on relevant topics
PedsICU tweets (@PedsICU_tweets)	Twitterbot	Re-sends all contents under the hashtag #PedsICU
#fridayquiz de @DrKanaris	Dr. Constantinos Kanaris (United Kingdom/@DrKanaris)	Interactive discussion of previously published clinical cases

#fridayquiz: clinical cases published through Twitter every Friday; Twitterbot: "bot" account, an automated re-send (*retweet*) application referred to contents under the hashtag #PedsICU.

exchange system, and to develop a sense of community among professionals in pediatric intensive care medicine from all over the world. The #PedsICU community facilitates professional exchange and constitutes a reliable platform where scientific knowledge can be shared and reviewed between authors and their readers.

As an example of the magnitude of this growing community, during the third week of April 2019 the hashtag accumulated a total of 3.289 million visits (potential tweet readings), with over 625 participants worldwide. The number of institutional and professional profiles grows daily, and most of the key events in our field now come with introductory comments on #SoMe and *live-tweeting*.

Constant education and exchange among peers of different origins is one of the strengths of the #PedsICU community. There are accounts for the reading of scientific journals, clinical cases, the divulgation of scientific activities, and the interactive discussion of available knowledge (Table 1). In recent years, the reference journal in pediatric intensive care, *Pediatric Critical Care Medicine*, has strongly endorsed #SoMe, with the designation of a specific editorial board member (Dr. Sapna Kudchadkar, also the creator of the hashtag #PedsICU), and has included the Twitter user reference of the authors in the editorial process, with the adoption of *visual abstracts* (involving two specific editorial board members in the task). Given the increasing impact of this editorial strategy, in the current year 2019 *Pediatric Critical Care Medicine* has launched a program involving 8 #SoMe ambassadors that tweet in 7 different languages, divulging contents.¹⁰

Most organizations (academic and healthcare institutions, research networks, etc.) and professionals interested in pediatric intensive care have found Twitter (and particularly #PedsICU) to be one of their meeting points, defining the #PedsICU community as an attractive and direct option for establishing professional ties on a global scale.

#PedsICU is a virtual space that generates real interactions in our intercommunicated world. If the hashtag #PedsICU has helped us – the two signing authors, who work on opposite sides of the Atlantic – to collaborate in writing this article, there are no reasons to doubt that the #PedsICU community, with the help of professional societies and institutions, can contribute to broader and more ambitious projects, with a view to improving the care of our critically ill patients and their families.

Conflicts of interest

The authors declare that they have no conflicts of interest.

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