



EDITORIAL

The role of traditional publishing of clinical evidence in the age of modern social media platforms

El papel de la publicación tradicional de pruebas clínicas en la era de las modernas plataformas mediáticas

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Social media have revolutionized the use of the internet. According to the Digital 2022 April Global Statshot Report, there are some 4.65 billion social media users worldwide. ¹ This number is the equivalent to 58.7% of the global population, many of whom are using social media as a primary source of information. According to the active user numbers, the most popular social media platforms in 2022 are Facebook (2.9 billion), youtube (2.2 billion), WhatsApp (2 billion), Instagram (2 billion), TikTok (1 billion), Snapchat (538 million), Pinterest (444 million), Reddit (430 million), LinkedIn (250 million), and Twitter (217 million). ¹ Social media is not just a U.S. phenomenon where 84% of Americans have at least one of the above-listed social media accounts. There are over 1 billion social media users in China, despite 415 million of its citizens having no internet access. ¹ Most younger generations of orthopedic surgeons coming up the ranks are either avid users of modern social media platforms or are at least aware of them. ²

Most orthopedic residency programs in the U.S. created a public social media presence. Of the 193 U.S. residency programs 138 (72%) have an Instagram account, 65% were created between April and December 2020, with an average of 1,156 followers and 60 posts. Most of the public posts were about resident introductions (33%), camaraderie (27%), and social life and hobbies (26%), depicting the residency program's culture in an attempt to bolster its reputation and aid in recruitment. ³ There are 89 fellowship programs listed in the American Society for Surgery of the Hand Fellowship Directory with 21 Instagram accounts. Seventeen were created in 2019 after the pandemic began with the highest engagement on skills, conferences, fellow, case example(s), faculty, and team dynamics, logistics, miscellaneous, and facilities. ⁴ Academic journals are not insulated from these trends. It appears they are directly competing with social media regarding publishing surgical techniques. ⁵ Many scholarly journals are the media outlets for subspecialty societies and employ vigorous reporting and disclosure guidelines to minimize the risk of reporting bias. A recent systematic review article published in Revista Colombiana de Ortopedia y Traumatología (RCOT) by its leaders highlights the laborious process of orchestrating high-level clinical evidence studies. In surgical specialties, such as orthopedics, randomization attempts are often so impractical that innovator surgeons

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may never meet these stringent clinical study reporting requirements and decide to not even compete in this arena. Instead, they turn to social media to publicize the innovations. Traditionally, the quest for recognition and validation of surgeons' innovations was best carried out in the traditional publishing environment. Nowadays, social media provides alternate routes – many of which lack academic scrutiny.

Numerous innovations have played out in the private sector before they got traction in academic centers and were adopted by professional surgeon societies with some foundation in treatment consensus statements. The burden of proof is lower in private practice and much lower in social media platforms. Since many surgeons follow their intuition when implementing innovative technologies, protocol transitions are often initiated in response to dissatisfaction with procedural shortcomings, less favorable outcomes or complications with established techniques. The desire to improve one's practice and get better clinical results has a strong rooting with most surgeons. It affects their standing in the community and their acceptance by their peers and the referring physicians on whose referrals they depend. However, in doing so, they look to professional societies and journals, such as the La Sociedad Colombiana De Cirugía Ortopédica Y Traumatología, (SCCOT) and la Revista Colombiana de Ortopedia y Traumatología, to provide the intellectual basis and to conceptualize the clinical context to justify such transitions. It is evident that this circular dynamic may have limits as such policy changes may depend on the societies' and journal's leadership own intuition bias towards their clinical experience as they have the fiduciary responsibility to weigh the available clinical evidence in such a way so that they endorse only actual advances in orthopedic clinical care. This explains the need for well-structured editorial board to vet the clinical evidence to get behind a new procedure or technology. While some surgeons may view this as providing the required due diligence in return for their membership, it may be perceived by others as a slow-moving bureaucracy that is out of touch with the day-to-day needs of practicing surgeons. The latter expect professional societies to fight these due diligence battles to substantiate their practice protocols and secure coverage by payers commensurate with the procedural complexity, effort, and intensity of delivering such modern orthopedic care.⁶

It quickly becomes evident that the need for serious publishing venues more accessible to orthopedic surgeons already overburdened with delivering care to day-to-day patients does exist. Open-access journals have taken off in recent years and have been shown to increase readership.⁷ High article processing fees pose a significant hurdle that some surgeons may not be able to afford.⁸ Surgeons will always look for ways to publicize and validate a change in their practice protocols. For example, orchestrating a transition away from time-proven traditional surgery protocols to minimally invasive technologies are not just about training and overcoming steep learning curves.⁹ It can quickly turn into a maze, even for the seasoned surgeon. Not everyone is prepared to put in all the extra work required to overcome the multiple implementation hurdles.¹⁰ There often are increased upfront capital investments for new equipment purchases, which hospitals and surgery centers are reluctant to make unless they understand the supporting scientific evidence and revenue cycles behind such new programs. Non-coverage statements by popular health insurance carriers may become a seemingly insurmountable obstacle for which there may not be an immediate, easy solution. Social media seems like an easy-to-access venue where some of these dynamics can be discussed publicly. Recent studies on the effectiveness of Twitter posts in disseminating new articles clearly show that social media presence may increase the awareness of innova-

tive articles but cannot replace the function of scientific journals in securing a higher recitation index of such works.^{11–14} The latter is crucially essential to solidify the impact of the innovation on peers. The members of the RCOT editorial board are keenly aware of this dynamic. For this reason, they decided to address its readership by showing alternatives to randomization and double-blinding to help surgeons manage this well-known glass ceiling effect in surgical clinical studies and to encourage them to submit their works for peer review at RCOT keeping in mind that surgical innovations in orthopedics become new protocol once published in our journal.

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