The Use of Social Media amongst Doctors Undertaking a Post-Graduate Endocrinology Diploma

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ABSTRACT

Background: Use of social media is growing but remains an underutilised resource for inter-professional and patient communication.

Method: The aim of this study was to raise awareness and use of social media amongst doctors attending a postgraduate diploma programme with the University of South Wales. Doctors were required to develop a YouTube video or set up a Twitter account to communicate information on endocrinology. Social media activity levels were monitored and measured. An on-line questionnaire was used to determine previous exposure to social media, perceptions of the importance of social media and intention to use it in the future.

Results: Thirty-eight doctors participated. Nineteen (50%) developed YouTube videos and 17 (44.7%) set up Twitter accounts, two students deferred studies (5.3%). Participants’ YouTube videos were viewed 2,067 times (average number of views, 115). The 17 subjects who opted for Twitter generated 2,347 tweets (average number of tweets, 138; range 2-854) and secured 659 followers (average 39; range 8-192). Thirteen of these 17 (77%) were still active 12 months after the assignment. Half the respondents of the on-line questionnaire were new to using social media. Perceptions of the importance and utility of social media among the doctors increased, particularly among those with little previous exposure to the medium.

Conclusion: This observational study reveals successful uptake and communication of professional messages to a wider audience through social media among doctors studying a post-graduate diploma in endocrinology; many of whom were social media naïve. The study supports the potential for wider use of social media in healthcare.

Keywords: Social Media; Endocrinology; Medical Education; Twitter; YouTube; Diploma

INTRODUCTION

Social media is the collective term for a number of internet-based platforms and applications that allow users to generate and share content [1]. Its use has grown exponentially in the past decade, helped by the increasing adoption of mobile devices that make constant connection to the Internet possible. The medium has the potential to be used widely in healthcare, provided professionals are familiar with its use and benefits.

Use of social networking sites by adults in the United States has grown from 8% in 2005 to 72% in May 2013 [2]. Social media channels such as Twitter and YouTube have been shown to substantially increase in the number of users. In 2016 Twitter usage stands at 7,106 tweets per second or 426,360 tweets per minute and 116,579 YouTube videos are watched per second [3]. Patients are turning to these channels for health information. Forty-two per cent of respondents in an IMS survey indicated that they had used social media to research a healthcare issue [2]. A survey of 23,000 respondents in the United States by the National Research Corporation showed that 32% used YouTube, and 18% turned to MySpace or Twitter for health information. One in four of the respondents said that what they learned on these sites was “very likely” or “likely” to impact their future health decisions [4]. In Europe, a similar survey found that half of all “online” consumers reported watching online health videos, predominantly seeking videos about condition information, either by using search engines or channels such as YouTube [5]. The UK online video audience is estimated to be growing by 8% per year [6].

In the past it has been thought that for patients, the need for confidentiality would drive them to other, more private platforms. However, in recent years there has been a sharp increase in the number of conversations in existing patient communities on Twitter and also a growth in the number of new patient communities [6]. The Healthcare Hashtag Project to monitor and collate health conversations on Twitter has amassed approximately 150 million health tweets, from which it has concluded that Twitter provides a convenient and powerful place for patients to meet other patients where they can both receive information but also give information from their own experience [7]. Many patients on social media are very engaged, often living with chronic conditions, cancers, or rare diseases, and may have more than just knowledge to impart to others; such patients are keen to change the way healthcare is delivered [8]. Introducing health care professionals to the possibilities afforded by social media opens up new ways to interact with patients, providing a tool to improve patient care, whether it be providing information about their care, or education about their condition, directing them to the latest information and/or research, or decreasing their sense of isolation.

Healthcare professionals (HCPs) are increasingly using social media in a professional capacity. The number of United Kingdom (UK) HCPs on Twitter exceeds 75,000 with UK consultants, general practitioners, nurses and pharmacists posting more than 152,000 ‘tweets’ a day [9] with the subjects discussed including healthcare policy, research and therapy areas. Healthcare professionals are also turning to twitter as a resource to add to their knowledge base and to keep updated. While Twitter cannot replace traditional methods of acquiring professional knowledge it is a quick and easy tool for accessing information. In 2012, a tipping point was reached, when at a major healthcare conference, there were more ‘virtual participants’ than participants who were physically present, illustrating the power of social media. The event also demonstrated that social media enables healthcare professionals to transcend geographic barriers [10].

Social media is already integrated into the clinical decision making process for doctors; physicians spend twice as much time using online resources than they do reading conventional print decision tools [11]. The Google Physician Channel Adoption study showed that on average, physicians spend three hours per week watching online videos for professional purposes and cite Medscape and YouTube followed by pharmaceutical company websites as the most important sources of video content [11]. The main reasons for accessing online videos were for continuing medical education (55%), disease and condition information (43%) and demonstrations of medical procedures (40%). Less commonly, physicians accessed video clips to share with patients (13%). Of respondents to the Google survey, 38% of those who watched a
a professional video online shared the information with a patient, and 40% shared it with a colleague [11].

Social media is also playing an increasing role in how physicians pursue their undergraduate, postgraduate and continuing medical education [12]. It can be used to hone practical skills, through watching online demonstration videos that offer the added advantage of being available at any hour of the day, and as a channel for students to interact with mentors and teachers. It is a proven, additional means of communication between the physician and his or her fellow students or colleagues, to share ideas, research and personal viewpoints in or out of normal working hours.

With the rapidly expanding use of social media by both patients and physicians, it is a natural progression for doctors to use these channels to help extend their reach when conveying health information to a wider audience. While online communication cannot replace the face-to-face consultation, social media can enhance between-visit care and help people, particularly those with long-term conditions to self-manage their condition [13].

This is particularly important with regard to patients with chronic endocrine disease where it is estimated that they may spend as little as eight hours per year in direct contact with a health professional [14]. Thus using social media is an increasingly important tool for doctors with which to be equipped and can assist in delivering healthcare messages with the potential for improved care. The growing use of social media by patients with long-term conditions seeking health information and support led to inclusion of the use of social media within the postgraduate endocrinology diploma course.

METHODS

We assessed the impact of incorporating social media activity on doctors undertaking an on-line postgraduate diploma in endocrinology (www.diploma-msc.com), studying how they used social media outlets. From our study it appears that the participants' YouTube videos were viewed 2,067 times (average number of views, 115) (Figure 1). The 17 subjects who opted for Twitter accounts generated 2,347 tweets (average number of tweets, 138; range 2-854) and overall, secured 659 followers (average 39; range 8-192) (Figure 2). At 12 months after completion of the project, 13 of the 17 (77%) could be seen to be still active on Twitter.

A total of 13 (59%) participants responded to the on-line questionnaire. Seven of the respondents (54%) had never used social media previously; two had previously used Facebook alone (15%), and four had used all the social media channels mentioned in the questionnaire (31%) (Facebook, YouTube and Twitter). Before completing the assignment, five (39%) of the respondents described themselves as uncomfortable or very uncomfortable about using social media but at the end of the assignment, all but one of the 13 respondents felt confident about using social media. Total scores of participants increased from 38 (range 1-5) to 52 (range 2-5) when 1 = completely uncomfortable and 5 = completely comfortable with using social media and average scores increased from 2.9 to 4. Similarly, there was a shift towards an understanding of the potential importance of the use of social media in medicine/healthcare with an increase in the average score from 3.5 to 4.1 (using a scale of 1-5, where 1 = not important and 5 = very important). In terms of its importance for communicating with colleagues and patients, on a scale of 1-5, with 1 being unsuccessful and 5 being very successful (maximum possible score = 65), the respondents considered social media to be important in communicating with colleagues (total score = 54; range 3-5) and patients (total score = 49; range 2-5).

DISCUSSION

The relatively recent development of social media channels has seen its growing use in healthcare by both patients and physicians. Within the area of chronic disease it is particularly important as both support and education for patients. Evidence suggests that education, communication and social networks impact on outcomes, particularly in chronic disease [16-18]. Thus, with chronic endocrine conditions such as obesity, hypopituitarism, polycystic ovarian syndrome and thyroid dysfunction, the ability of social media to reach out to a potentially large and receptive audience holds an appeal to the health care professional and becoming a new way to improve care.

This observational study reveals that doctors studying for a postgraduate endocrine diploma can use social media successfully to engage with a wider audience. Our study reveals that 54% of respondents were using social media at the commencement of the project, with the remaining 46% indicating that they had not been using social media or attempted to use it in their practice. The degree of usage is encouraging as a recent study suggests that young doctors felt more comfortable with using social media to distribute endocrine messages and importantly, continued using social media after completion of the project. Almost all felt that the project increased their confidence in using social media and opened their eyes to new ways of relating to patients and colleagues and enabling them to utilise its potential as a new communication tool with patients and colleagues. This may be a consequence of the fact that within the supported environment of a course subjects were enabled to experiment with unfamiliar techniques and new ways of working which might otherwise have appeared daunting.

Another interesting observation from this study is that we were able to take a group of social media-naive doctors and observe how they used social media outlets. From our study it appears...
that the doctors were more likely to see the importance of social media channels to communicate with colleagues rather than with patients. Peer to peer communication may be the easiest way to get started, with expansion of networks and influence as confidence grows. It is in line with current thinking on the use of channels such as Twitter, which has been described as a ‘virtual water cooler’ [20] – a location for healthcare professions to gather and share information with each other.

For many healthcare professionals, the concern about misuse of social media is a stumbling block to uptake. Undertaking this diploma course allowed students to explore the possibilities of the medium in a supported environment. The importance of knowing about, and following guidance on the appropriate use of social media was highlighted to students and a discussion forum allowed them to debate or express their concerns amidst peer and tutor support. Professional bodies such as the UK General Medical Council [12] help by providing guidance on the responsible use of social media. They recognise the benefits of social media in engaging people in public health and policy discussions, to establishing professional networks and facilitating patient access to information about health and services. They also provide guidance on guarding against the inappropriate use of social media by maintaining professional boundaries, protecting patient confidentiality, and respecting fellow professionals.

The on-going challenge for our students is to take the confidence and experience they have gained using social media and build upon it to build their expertise in communicating with patients [21]. In a previous study among healthcare professionals undertaking a postgraduate course in diabetes we found that social media-naïve healthcare professionals from diverse backgrounds were able to adopt and effectively use social media platforms to deliver health care messages [21]. Indeed, former students report having incorporated its use into their practice by setting up patient fora, sending out reminders and updates to patients with chronic conditions and building an on-line community in efforts to improve patient care. The present study confirms this finding within a group of doctors studying endocrinology. Further follow up is planned as student numbers expand, looking at participant characteristics and continued usage of social media applied to clinical practice.

A limitation of the study was that some students had not yet reached the point in the programme where they completed the on-line questionnaire so the number of responses was less. While it is not possible to assert that the responses were representative of the student cohort, nonetheless, the observations are of interest, particularly in respect of the apparent growth in confidence and recognition of the importance of these channels of communication. A result of this study the feedback exercise has become a mandatory and integral part of the assignment. Another potential limitation is that our relatively small group of students who undertook social media activities within the context of a diploma course may not be representative of endocrinologists adopting social media, de novo. However, that said, the course’s social media module has enabled us to follow a group of practising endocrinologists who would otherwise be very difficult to identify and track as they commence use of social media. To our knowledge it is the first study to provide such data. Furthermore, the study does provide an insight into attrition and unforced use of social media following termination of the course.

**CONCLUSION**

The findings of this observational study reinforce the value of including ‘use of social media’ in post-graduate study and show the possibilities for extending its use in both professional and patient arenas. The study revealed that exposing healthcare professionals to social media provides alternative modes of communication for healthcare messages among both patients and healthcare professionals. Used effectively, social media can be an agent for addressing communication needs and thus can form an important tool in providing a high quality healthcare.

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<th>Table 1. Characteristics of participants</th>
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<td><strong>Number of students</strong></td>
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<td><strong>Medical Discipline</strong></td>
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<td>Specialist e.g. diabetologist/endocrinologist</td>
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**Note:** Two students deferred their studies during the period of the course.

**Figure 1:** Results for participants opting to use YouTube

**Figure 2:** Results for participants electing to use Twitter

**Table 1.** Characteristics of participants

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Conflict of Interest and Acknowledgements
The authors are involved in running the course described but have not received any financial or other support and the study has not been published or submitted elsewhere.

Ethics
Local ethics committee approval was deemed unnecessary for this study as we retrospectively reported on social media activity which is in the public domain.

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Guarantor
Prof JS Davies acts as the guarantor for this article

Contributorship
Dr RE Davis [RED], Dr A Kalhan [AK] and Prof JS Davies [JSD] conceptualised this study. RED and JSD wrote the paper with assistance from AK. AK undertook the supervision of the students participating in the diploma programme. All work on this article is the unique contribution of the authors and the administrative team of Diploma-MSc.com

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