Using Social Media to Increase the Recruitment of Clinical Research Participants

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INTRODUCTION

Clinical trials are research designed to evaluate ways to prevent, detect, or treat diseases and conditions (National Institutes of Health, 2015). Despite their importance, it has become increasingly challenging to enroll participants in clinical trials. According to Mahon, Roberts, Furlong, Uhlenbrauck, and Bull (2015), a high number of clinical trials fail to recruit the necessary number of participants. Multiple studies have been conducted to estimate how many fail, and although they vary in the exact number, researchers recognize and agree that insufficient recruitment is a significant problem that continues to exist in clinical trials. As the number of clinical trials increases (Inventiv Health, 2013), as there is an increased focus on research that involves more complex diseases and specialized medicines, and as researchers work to develop treatments that are better targeted to patients (Akhtar, Israel, & D'Abundo, 2015), the problem of insufficient recruitment will continue to grow unless changes are made to the recruitment process.

In general, researchers rely on traditional recruitment methods to enroll participants. Traditional recruitment methods revolve around the physicians and their support staff having the primary role to locate and recruit these participants. This could include them personally recruiting patients, searching their patient databases, or through printed materials such as flyers and newspapers (Tanner, Kim, Friedman, Foster, & Bergeron, 2015). Although these ways can lead to the recruitment of some participants, they prove to be limited to a small patient population and are not aligned with changing times. In recent years, medical information is becoming more available to patients on the internet. Similarly, according to the Pew Research Center (2014), 87% of adults use the internet. In fact, many patients are now using the internet as the first source to retrieve health-related information such as on physicians, diagnoses, and therapies (Omurtag, Jimenez, Ratts, Odem, & Cooper, 2012). Furthermore, individuals are becoming more informed when it comes to health-related issues and are taking a bigger role in their healthcare decisions. In fact, when experiencing symptoms, many individuals are first searching the internet before deciding to see a physician (Shere, Zhao, & Koren, 2014). Despite this, recruitment strategies have not adapted with these changes. "What most in the industry have not yet adjusted to is the fact that patients and caregivers have changed how and where they seek and find information – especially healthcare information" (Inventiv Health, 2013, p. 6). With individuals using online platforms to retrieve information, this creates an opportunity for research site personnel to use it as a way to relay information on clinical trial opportunities.

More specifically, social media is an online platform where discussions and engagement can take place between individuals, online communities, and research staff (Shere et al., 2014). It is a platform that can be used to discuss or disseminate information on clinical trials. Grajales lll, Sheps, Ho, Novak-Lauscher, and Eysenbach

(2014) found that social media is being used to increase and maintain communications across the different stakeholders, which could include communications between research site personnel and potential participants. Therefore, using social media could be an avenue for investigative site personnel to use to disseminate information on clinical trials to potential participants.

This chapter will review clinical research studies that have successfully utilized social media strategies in recruitment, along with the conclusions and recommendations that future researchers should consider when deciding whether to implement this type of strategy in their clinical trial recruitment.

BACKGROUND

Clinical trials are designed with the objective to enroll a specific number of participants who are to receive a specified treatment such as a drug, procedure, or behavioral program (Akhtar et al., 2015). However, trials frequently discontinue, even in late stage Phase III trials, due to failure to accrue (Schroen et al., 2010). The failure to recruit the necessary number of participants can have an effect on the overall success of the study (Embi et al., 2005). Insufficient recruitment could lead to delays in the approval of necessary medications and higher costs due to the extended recruitment period. In addition, the inability for a study to enroll the target sample size can lead to an insufficient statistical power (Carlisle, Kimmelman, Ramsay, & MacKinnon, 2015). This can prohibit the ability to answer the study's research questions or lead to conclusions which are not accurate. Further, the inability to enroll the necessary number of participants can have an effect on all stakeholders including the investigate site personnel led by principal investigators who carry out the clinical trials, and the individuals with diseases or conditions.

Social Media

Social media use is expected to continue to increase. As of 2015, the Pew Research Center found that approximately 65% of American adults use social networking sites, an increase from 7% as of 2005 (Perrin, 2015). Social media are "web-based tools that are used for computer-mediated communication" (Grajales lll et al., 2014, para. 5). There are different types of social media platforms including blogs, microblogs such as Twitter, social media sites such as Facebook, and thematic networking sites such as forums that center on a particular disease or condition. The applications are diverse in their traditional primary functions – for example, LinkedIn for professional networking, Facebook for social networking, YouTube for media sharing, and blogs and Twitter for content production (Dizon et al., 2012).

The traditional uses of many of these platforms are evolving into more of knowledge-based platforms. These types of social media applications are now platforms to share new information and encourage the exchange of ideas (Dizon et al., 2012). Therefore, they can be used to communicate in a variety of ways including the sharing and discussion of clinical trial recruitment opportunities. In fact, strategies that inform and educate on the diseases and conditions being studied have shown to lead to the improvement in recruitment (Dizon et al., 2012). Therefore, the benefits for providing this type of information are two-fold – educating the population of interest about the disease or condition and increasing their interest in the research opportunity. Patel, Doku, and Tennakoon (2003) described it as a process of providing information to the potential participants and then creating an interest for the study.

Social media applications and tools are widely accessible and are usually of no to low cost (Dizon et al., 2012). In consequence, they can be advantageous to use versus traditional methods, which are limited to a small patient pool and can be costly

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