

Facebook Advertising To Recruit Pediatric Populations

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Dear Editor:

Facebook is being used as an innovative and cost-effective strategy for research recruitment.^{1,2} This novel approach is promising for researchers experiencing recruitment difficulties because of few eligible participants. Studies involving children with advanced cancer may require multiple data collection sites to achieve adequate sample sizes. Unfortunately, multisite studies pose additional challenges, such as high costs, large number of staff, and numerous institutional review boards. Facebook has been used to successfully recruit parents of children with cancer,³ yet recruitment of more challenging groups such as children with relapsed or refractory cancer and their parents remains unexplored. This

study examined the use of Facebook advertising to recruit children with advanced cancer and their parents.

Methods

Facebook advertisements were used to recruit children 7–17 years of age with relapsed or refractory cancer and their parent caregivers to participate in a digital storytelling project. We developed the advertisement (see Fig. 1) according to size, word count, and policies specified by Facebook. To reach parents, the advertisements targeted individuals of ages 18 years and above in the United States with interest terms related to childhood cancer. The ad contained a link to an



The image shows a screenshot of a Facebook advertisement. At the top, it says "My Store" with a date of "December 18, 2014" and a "Like Page" button. The main text of the ad reads: "Complete a Vanderbilt survey for a chance to win a \$100 Amazon gift card." Below this is a photograph of two young girls, one with a headscarf, and the text "Childhood Cancer Parents". The text continues: "Is your child 7-17 years old with cancer? You and your child can participate in a digital storytelling project. Participate now!" There is a "Sign Up" button and the URL "REDCAP.VANDERBILT.EDU". At the bottom of the ad, it says "5,590 people reached" and has a "Boost Post" button. Below the ad are the standard Facebook interaction buttons: "Like", "Comment", and "Share".

FIG. 1. Facebook advertisement example.

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TABLE 1. STRATEGIES FOR FACEBOOK ADVERTISING SUCCESS

<i>What did NOT work</i>	<i>What worked</i>	<i>Rationale</i>
Linking ad to short survey asking for potential participant contact information first.	Linking ad to short survey asking for basic demographic information first and contact information last.	Safe survey questions first seem to build trust with potential participants so that they are then comfortable to provide contact information electronically.
Smaller number of interest terms (potential reach ~2 million).	Larger number of interest terms (Revised potential reach to ~7 million, but have since revised to 4.6 million in our ongoing larger study).	Want a wide audience reach, but not too wide where too many ineligible and uninterested people see ads.
Advertisement wording specified narrow inclusion criteria (e.g., study for children with relapsed/refractory cancer)	Advertisement wording was broader (e.g., study for children with advanced cancer).	For relatively rare populations, cast a wide net but also remain targeted to the appropriate audience.
Researchers being rigid in advertising approach and unwilling to make changes.	Researchers being flexible in advertising approach and willing to make revisions to advertising campaign as needed.	A flexible approach is needed to align with the changing nature of social media advertising.

electronic survey including eligibility questions. Eligible participants continued to complete demographic information and provide their contact information if willing to pilot the newly developed web-based digital storytelling intervention. Participants were eligible for a drawing to receive a \$100 gift card.

We determined a maximum total of \$1810 for the campaign. Ad delivery was optimized for clicks to our website link, and Facebook automatically charged per impression. Facebook provided data on impressions (number of times advertisements are shown to users), clicks on the link, and dollars spent. We developed several advertising campaigns to fine-tune strategies (Table 1) to recruit 10 participants in a short time period (e.g., one month).

Results

Facebook delivered advertisements for 12 days (December 18, 2014—December 30, 2014). The ads generated 110,211 impressions, were shown to 86,156 people, and resulted in 839 survey website clicks. The campaign cost \$536.92, averaging \$0.64 per website click. Of 76 electronically screened individuals, 37 were eligible and 22 completed the survey. Among 14 eligible participants agreeing to personal contact, 7 enrolled in the digital story project and 7 refused.

Discussion

Compared with 10 eligible participants per year at our institution who met the same inclusion criteria, Facebook advertising was a feasible and effective strategy to quickly recruit a diverse sample of children with advanced cancer and their parents. Understanding the process involved in finding the best recruitment strategies is crucial. Researchers may benefit from piloting Facebook advertisements before launching larger studies. We revised our advertising campaign several times before having success. Similar advertisements and strategies used previously³ were unsuccessful when first used in this study. Facebook advertising experts advised that algorithms had changed; strategies that worked previously may not work the same now or in the future. Useful resources for successful revisions included collaboration with marketing and Facebook advertising experts. Researchers developing Face-

book advertising campaigns may consider these valuable resources during early phases.

This study was invaluable to launch a successful ad campaign for our larger RO1 currently in progress. Even so, we revised our RO1 advertising campaign again after three months, indicating the need for close monitoring of campaign responses that could indicate new or revised versions. We narrowed interest terms, which decreased the potential reach from >7 million to 4.6 million, to minimize ineligible people from receiving the ad. We recommend future pilot campaigns to last at least three months to allow time for such issues to arise and to be resolved before larger studies. More research is needed to examine Facebook recruitment methods specific to pediatrics.

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