International Journal of Nursing
December 2014, Vol. 1, No. 2, pp. 39-47
ISSN 2373-7662 (Print) 2373-7670 (Online)
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Published by American Research Institute for Policy Development
DOI: 10.15640/ijn.v1n2a4
URL: http://dx.doi.org/DOI: 10.15640/ijn.v1n2a4

Using Social Media to Recruit Parents for Diabetes Research

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Abstract

Aim: The aim of this paper is to describe the use of Facebook for recruitment of parents for diabetes research. **Method:** An online self-administered questionnaire was designed in Survey Monkey and was available via a dedicated Facebook page. Data was collectedfrom parents (66) of children with type 1 diabetes attending an Australian primary school (kindergarten-Year 2). **Results:** 84 people "liked" the Diabetes at school Facebook page. 781 people were directly reached in Australia. The page was predominately accessed by females (78%), aged 35-44 years (34%) and 25-34 (29%). The two major cities in Australia were Melbourne, Victoria (94) and Sydney, NSW (83). The diabetes at school Facebook page was visited frequently during early February and the highest number of views in one day was 50. **Conclusion:** The key benefits of using Facebook to recruit parents for diabetes research were; the ease of use, increased access, cost saving and immediate collection of data.

Keywords: Facebook, Survey Monkey, social media

Introduction

Use of technology has increased dramatically in recent years and a large percentage of the population are communicating online, via a computer, smart phone or tablet device (Newman, Biedrzycki, & Baum, 2012). Therefore researchers need to find new ways to engage participants by incorporating innovative techniques including the Internet, social media and online surveys. This article will discuss the use of Survey Monkey and Facebook to recruit parents for diabetes research.

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The online social media, Facebook is potentially an effective way of recruiting participants as there are over 11 million users in Australia, representing 55% of the population (Social Bakers, 2012). The majority (75%) of users visit Facebook everyday and are predominantly female (53%) aged 25-34 years (30%) (Social Bakers, 2012). Other popular age groups are 18-24 years (29%) and 35-44 years (16%) (Social Bakers, 2012).

Facebook also effectively targets age groups who are frequently using mobile phones and computers for communication (Ramo & Prochaska, 2012). Parents of children attending early primary school tend to be aged between 30-40 years (Li, McNally, Hilder, & Sullivan, 2011) and are therefore likely to use Facebook. A study by Greene, Choudhry, Kilabuk, and Shrank (2011) found that the largest Facebook groups were dedicated to diabetes and that patients and family members used Facebook to share information and gain support. This method of recruitment was therefore chosen for the current research, for possible increased access to the whole of Australia in an economical and less time consuming way. Social media is also a contemporary approach that is likely to engage those who enjoy this form of communication.

Another benefit of Facebook is the reduction of cost and research staff and participant's time (Ramo & Prochaska, 2012). The online media Facebook was free and time efficient as once target Facebook groups and pages were located, posts could be copied and pasted. In comparison, paper postal questionnaires are quite expensive. Gaining access to diabetes databases for potential participants can also be quite costly and time consuming.

A disadvantage of this method of recruitment for the current study was the inability to identify how many parents in the target population had access to Facebook. Therefore a definition of the potential sample size was not possible. However, data was able to be collected about the number of people who accessed the Facebook page and the online questionnaire.

Method

The study was conducted in Australia and focused on children attending early primary school: kindergarten, Year 1 and Year 2 (aged 4-8 years).

The inclusion criteria were: a parent or carer of a child with type 1 diabetes attending an Australian primary school in kindergarten, Year 1 or 2, ability to read and write in English at an eighth grade level and have access to a computer with internet connection.66 parents were included in the analysis.

Non-probability, purposive, volunteer sampling was used for this study.

Survey Monkey

The self-administered questionnaire was designed and administered via Survey Monkey. Survey Monkey is an online survey and evaluation tool. Users have a choice of a free version, limiting to one hundred respondents and ten survey questions, or priced versions that provide access to more tools (Creswell, 2009). The current study required a monthly subscription of twenty dollars to enable the required number of questions (greater than 10). Question templates are available, or surveyors can create their own (Creswell, 2009). The diabetes at school survey questions were developed by the researcher.

The following features of Survey Monkey were utilised in the current research: five question types, skip logic, answer required, result download, embed link to the survey on the Facebook page and a report of the final results (Gordon, 2002). A variety of question types were utilised depending on the type of data that needed to be collected. These included: rating scales, multiple choice, comment box, matrix of choices and drop down menu.

Skip logic was used during the first section of the survey. If the participant didn't meet the study criteria, the survey ended. Some questions were also skipped if they were not relevant as evidenced by the previous response. The inclusion criteria and the child's age required answers or the participant could not continue through the survey. The Survey Monkey link was embedded on the dedicated 'diabetes at school survey' Facebook page and a direct web link was also created.

An additional feature of Survey Monkey is the ability to download a copy of the survey into a PDF or excel file. Survey Monkey generates results and provides descriptive reports or graphs (Creswell, 2009).

The final survey responses were downloaded into an excel spreadsheet for analysis with the Statistical Package for Social Sciences (SPSS). The higher Survey Monkey subscription plans enable more analysis options and easier integration with SPSS.

Facebook

A Facebook page was created, 'Diabetes at school survey' which included information about the study and a link to the electronic questionnaire via Survey Monkey. Commencing in early February, online posts from 'Diabetes at school survey' were placed on Facebook pages and groups that were focused on diabetes or parenting a child with diabetes within Australia. The online post included brief details of the study and an electronic link to the Facebook page dedicated to the diabetes at school research (Figure 1). Electronic links were then available for the online anonymous questionnaire if parents chose to participate.

February is an ideal time to recruit parents, as children have recently recommenced school and diabetes management at school is likely to be important at this time. Regular (weekly – secondweekly) posts were placed on the dedicated diabetes at school survey Facebook page timeline and diabetes groups and pages to maintain interest in the study. A paid Facebook advertisement that targeted parents and diabetes interest groups was also used twice during the recruitment period.

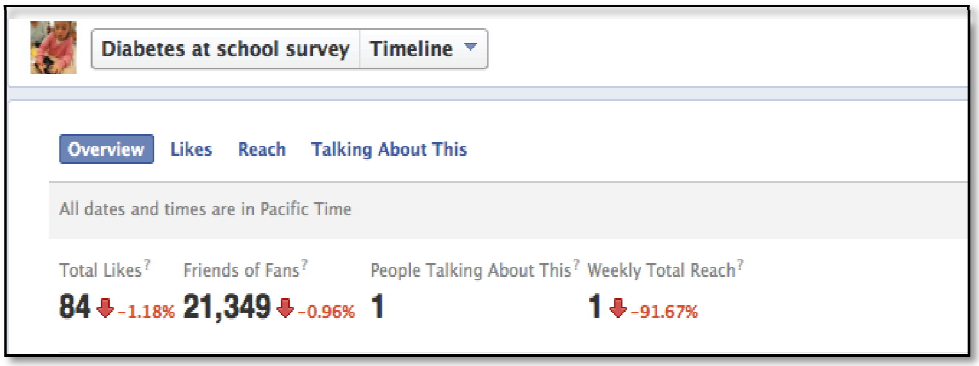
Figure 1: DiabetesatSchool FacebookPage – Recruitment Post

Results

By the end of the recruitment period, 84 people "liked" the Facebook page. When a person clicks on the "Like" button they receive any information posted on the Facebook page as a notification. Depending on a person's Facebook settings, a notification could be sent immediately to their mobile phone or email address. This is an effective way of transmitting information to a large audience.

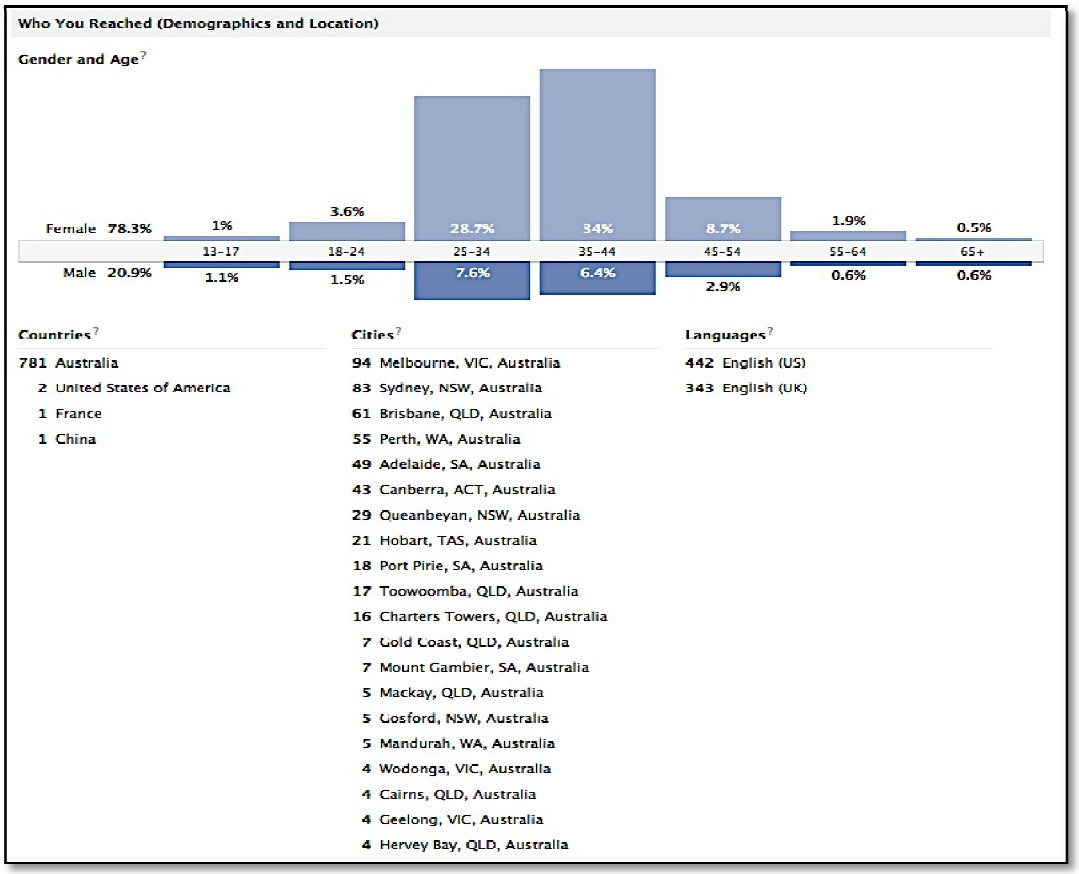
Including the Facebook "friends of fans" who liked the page, this could potentially reach 21, 349 people according to Facebook statistics in Figure 2. Friends of fans are often able to see activity on their friend's pages. This means that if a Facebook friend likes a page, others may also decide to visit the page and access the content.

Figure 2: DiabetesatSchool FacebookPage –Overview



The diabetes at school Facebook page during it's most popular time (mid January to mid February) reached 781 people directly in Australia (Figure 3). The page was predominately accessed by females (78%), aged 35-44 years (34%) and 25-34 (29%). The two major cities in Australia were Melbourne, Victoria (94) and Sydney, NSW (83).

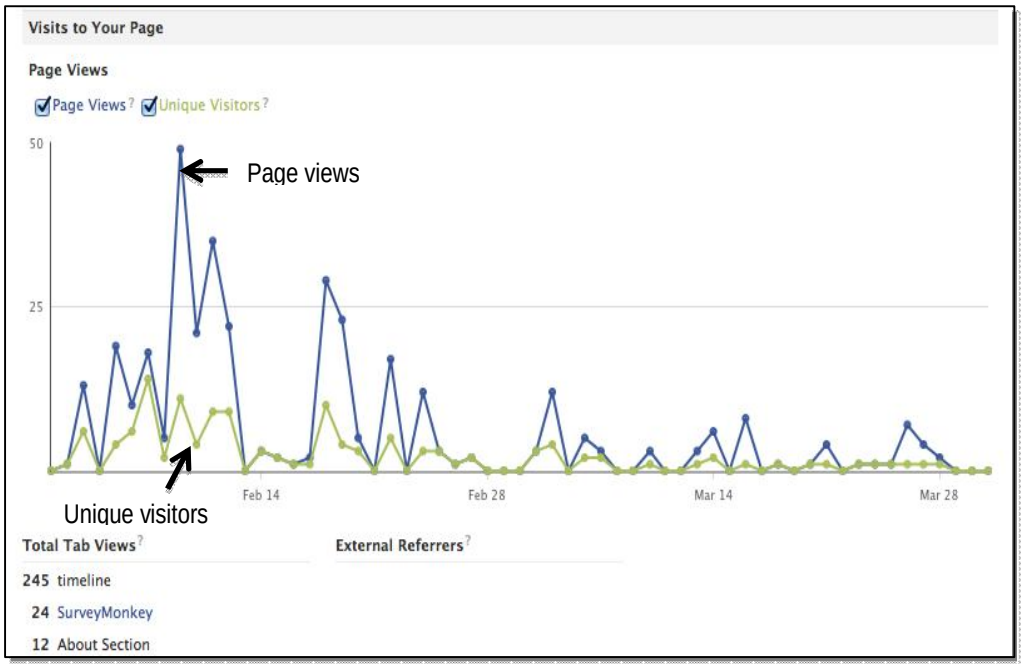
Figure 3: DiabetesatSchool FacebookPage – Demographics and Location of People whowereReached



The diabetes at school Facebook page was visited frequently during early February (Figure 4) and the highest number of views in one day was 50. Facebook statistics were helpful to review during the recruitment process. The location of people reached was analysed and checked via the Survey Monkey responses to enable targeting of Australian States or Territories that were not yet responding, or school grades of children that were minimal. Posts were then placed on location specific Facebook pages, for example Diabetes Australia Northern Territory. Posts were also placed on the diabetes at school Facebook page to highlight the need for more surveys from a particular area. These posts were useful for a reminder to complete the survey and also to inform parents about the need for more surveys.

After posts were placed on the diabetes at school Facebook page, statistics showed that more people were engaged and talking about the post to other Facebook users. It was reassuring to see the immediate impact of this method.

Figure 4: Diabetes at SchoolFacebook Page - Visits



Discussion

Use of technology has increased dramatically in recent years and a large percentage of the population are communicating online, via a computer, smart phone or tablet device (Newman et al., 2012). Therefore researchers need to find new ways to engage participants by incorporating innovative techniques including the Internet, social media and online surveys.Fenner et al. (2012)supports this opinion and stated that many social interactions are now occurring via the internet, and that social networking is a promising new way to recruit participants into medical research.The researchers found good levels of engagement from participants that were traditionally under represented in health studies. For instance, participants from regional and rural areas of Australia who are often less likely to travel to study sites were well represented in their research.

This was a consideration for the current study, as it would have been difficult to recruit participants from various areas of Australia in the short period of time that was available. Facebook bridged the geographical gap and enabled parents to voice their concerns about diabetes care at school in an engaging, convenient, non-intrusive way.

Further benefits of Facebook include; speed of responses, time and cost savings and potentially an increase in representative sample size (Tan, 2010). In addition, Kapp, Peters, and Oliver (2013) reported that the ease of Facebook advertisements for recruitment of participants could revolutionise health research, particularly in terms of international recruitment. The combination of paid Facebook advertisements and free posts on diabetes group pages were useful in the current study, as more participants were potentially reached. Similarly, higher participation rates were found by Baltar and Brunet (2012)when Facebook was used compared to traditional snowball techniques. One reason for this response was thought to be the level of confidence with the researcher who was participating in the Facebook process. Participants had online access to the researcher and could interact with online posts from others. Furthermore, participants online increased access to contacts offline in this study. Therefore communication was made with people who would not usually access online media(older, ethnic minorities).

In summary, the key benefits of using Facebook in the current study were; the ease of use, increased access, cost saving and immediate collection of data. Although there are many advantages to using Facebook for recruitment of research participants the issue of selection bias remains. Further studies are required in order to find ways to fully utilise this innovative method.

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