Perceived outcomes of online parenting information according to self-selected participants from a population of website users

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ABSTRACT

Looking for consumer health/well-being information online is increasingly common. However, little is known about how people are using information targeted to a specific audience, and what happens as a result of this use. We partnered with 'Naitre & Grandir' (N&G), a magazine, website and newsletter offering trustworthy parenting information on child growth, development and health/well-being. This study was designed to uncover the outcomes of online parenting information. We used the theory-driven Information Assessment Method (IAM) to study parental perceptions regarding outcomes of specific N&G web pages. A research question was: Is there a difference between parents with a low level of education and income vs. other parents? Over an 8-month study period, 4007 participants submitted 4862 IAM ratings that suggested N&G information was valuable in terms of situational relevance (93.7%), positive cognitive impact (92.9%), intention to use (85.7%), and expectation for child health/well-being benefit (82.4%). In addition, results suggested participants with a low level of education and income were more likely to (i) seek and use information for the child of someone else, and (ii) expect being more engaged in decision-making for their child, and being less worried regarding a problem concerning their child. Our results do not support an association between the combined level of income and education, and perceived outcomes of information. This is the first study to assess outcomes of emailed parenting information from a parental viewpoint. More research is needed to better understand outcomes of targeted online information, which may ultimately contribute to improve people’s health/well-being.

Keywords

Information use; Information outcomes; Information assessment; Online consumer health information; Parenting.

INTRODUCTION

Numerous research studies, governments and international organizations consider parenting the most important factor associated with childhood and teenage development, education, health and well-being (and the main predictor of problems in adulthood and the next generation). However, preventive services are rare, and the most disadvantaged parents receive little help before problems occur. Parenting online information may help parents 24/7, but parents with a low combined level of income and education can be discouraged by parenting information they find difficult to understand, whereas, those with higher levels of income or education may benefit more from information. Considering that only a few studies have focused on information use and subsequent outcomes (Case & O’Connor, 2015), we had two research questions: (a) From a parental viewpoint, what are the outcomes of online parenting information? (b) Is there a difference between parents with a low combined level of income and education compared to others (parents with a higher level of income or education)?

‘Naitre & Grandir’ (N&G) is a magazine, a website and a newsletter (naitreetgrandir.com). N&G provides free, independent and trustworthy information to equip parents and families during pregnancy and the first five years of their children’s lives. N&G is funded by the ‘Lucie and André Chagnon’ Foundation, a philanthropic organization that seeks to contribute to the educational success of children, specifically in families in situation of social vulnerability. In line with the literature on ‘information poor’ and parental competency, parents with a low income and a low level of education are less likely to perceive outcomes of N&G information compared to other parents.

Since 2014, McGill University and N&G have worked in partnership to implement the Information Assessment...
Method (IAM) for assessing and improving the N&G website and newsletter. Developed at McGill, the IAM allows people to rate specific information content (e.g., a N&G web page) (www.mcgill.ca/iam) (Pluye et al., 2013). Specifically, the four levels of outcomes reflect how information is valuable from the user viewpoint, and are derived from the 3-stage iterative ‘Acquisition-Cognition-Application’ process proposed by Saracevic and Kantor for assessing the value of information and information services (Saracevic & Kantor, 1997): people receive or retrieve information (Acquisition), understand and integrate it (Cognition), and possibly use it (Application). Following this process, the four levels of outcomes are (a) the situational relevance of the information, (b) its cognitive impact, (c) the use of the information, and (d) subsequent health/well-being outcomes. The IAM questionnaire operationalizes these levels, specifically expected outcomes arising from the use of information. We recently reviewed the literature, and found no similar questionnaire.

METHODS

Participants

N&G web page visitors can register to receive a weekly newsletter containing three links to N&G web pages personalized according to the age of their child. Participants were Quebec residents who accessed N&G webpages through weekly newsletters, and completed at least one IAM questionnaire during the study period (from June 1, 2014 to January 31, 2015 inclusively).

Instrument

The IAM questionnaire was adapted for N&G (Pluye et al., 2014). Participants were asked to complete an optional demographic questionnaire once.

Data Source

All completed IAM questionnaires were included in the study when participants accessed N&G webpages through the newsletter. Participants were identified by their email address, and assigned anonymous individual IDs. IAM ratings and demographic data were collected by N&G, anonymized and transferred to McGill.

Statistical Analysis

With respect to descriptive statistics, categorical variables were summarized with counts and percentages. A Pearson's chi-squared test was used to determine whether the differences between two groups of participants were statistically significant: the group ‘low’ (combining a low level of income and a low level of education) vs. the group ‘higher’ (a higher level of education or a higher level of income). Test results were deemed statistically significant when p-values (p) were less than 0.01. All tests were conducted using SAS version 9.4. In line with the Québec poverty line, a low level of income was defined as an annual family income less than $40,000. A low level of education was defined as a high school diploma or no diploma (high school not completed).

RESULTS

Over the 8-month study period, 4007 persons submitted 4862 IAM ratings (on average 1.2 ratings per person; range 1-11) on 523 N&G web pages (on average 9.3 ratings per page; range 1-63) that they accessed through the weekly newsletters.

With respect to our first research question, IAM ratings revealed that N&G web pages were relevant and had a positive cognitive impact in 93.7% and 92.9% of the time, respectively (n=4862). An intention to use N&G information, and expectations of subsequent health/well-being outcomes were reported in 85.7% and 82.4% of the time, respectively (n=4862). Potentially negative consequences of N&G information on children were rarely reported (1.1%).

With regard to our second research question, there were 2437 participants: 81 had a low annual family income and a low level of education (group ‘low’), and 2356 had a higher annual family income or a higher level of education (group ‘higher’).

Situational relevance of N&G information: There was only one statistically significant difference between responses of participants of these two groups: the participants of the group ‘low’ were 2.7 times more likely to look for N&G information to address a question/problem of the child of someone else (p<0.0001).

Cognitive impact of N&G information: There were no statistically significant differences between responses of participants of the two groups.

Intention to use N&G information: There were two statistically significant differences between responses of participants of the two groups. The participants of the group ‘low’ were 3.1 times more likely to use N&G information for the child of someone else (p<0.0001).

Expectation regarding child health/well-being outcomes from using N&G information: There were four statistically significant differences between responses of participants of the two groups. For example, the participants of the group ‘low’ were 1.6 times (p=0.0001) and 1.2 times (0.0001 < p < 0.01) more likely to expect being more engaged in decision-making for their child, and being less worried regarding a problem concerning their child, respectively.

DISCUSSION

This study is the first to systematically assess outcomes of online parenting information from a parental viewpoint (parental assessment of a specific information object).
Results directly assessed the N&G information resource, and can contribute to knowledge on information outcomes. They do not support an association between the combined level of income and education, and perceived outcomes of information. For example, participants with a low level of income and education were more likely to (a) seek and use information for the child of someone else, and (b) to expect decrease worries and an empowerment-related outcome (being more engaged) from using information.

With regard to descriptive statistic, our study faces a limitation. We used a convenience sample: (a) participants volunteered; (b) only participants’ ratings of N&G web pages accessed via the newsletter were gathered (ratings of the website cannot be associated to individuals); and (c) only IAM ratings of participants who completed a demographic questionnaire were included. This limitation led to an over-estimation of perceived positive outcomes (social desirability bias).

With respect to the statistical tests, however, this source of bias did not affect the results. The social desirability bias equally influenced ratings of the participants from the two groups (‘low’ and ‘higher’).

CONCLUSION

Our results uncover perceived outcomes of online parenting information. They support the IAM as a novel method for assessing and improving targeted online consumer information, which may be of interest for other information providers. Finally, these results suggest questions for future research such as ‘To what extent are social network and individual resources associated with these outcomes?’ and ‘How does the use of parenting information translate into experienced outcomes?’ To address these questions and overcome the limitations of the present study, we are planning a mixed methods research study combining a cohort study (quantitative evidence) with a life history study (qualitative evidence).

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