This is the unformatted version of article http://dx.doi.org/10.1071/HE15057 published by CSIRO Publishing.

Challenges to translating new media interventions in community practice: a sexual health SMS program case study

Cassandra J. C. Wright [A B D], Kaytlyn Leinberger [C] and Megan S. C. Lim [A B]

[A] Centre for Population Health, Burnet Institute, 85 Commercial Road, Melbourne, Vic. 3004, Australia.

[B] School of Public Health and Preventive Medicine, Monash University, 99 Commercial Road, Melbourne, Vic. 3004, Australia.

[C] headspace Central West Gippsland, 99 Buckley Street, Morwell, Vic. 3840, Australia.

[D] Corresponding author. Email: cassandra.wright@burnet.edu.au

Health Promotion Journal of Australia 27(1) 70-73 http://dx.doi.org/10.1071/HE15057

Submitted: 5 June 2015 Accepted: 27 August 2015 Published: 20 October 2015

The final formatted version of record is available at http://www.publish.csiro.au/journals/hpja

Abstract

Issue addressed

Translational challenges for new media interventions, using the Sexual Health & Youth (SHY) SMS project as an illustrative case study.

Methods

The SHY project aimed to increase knowledge and uptake of sexual health care and sexual health protective behaviours among young people in Gippsland, Victoria. It involved sending SMS messages (developed and tested in previous research) monthly, for 12 months. Following the limited success

of the program, program documents were analysed thematically to elucidate the barriers to recruitment, implementation and evaluation.

Results

Despite being framed by evidence-based research, the project had little impact on the intended population. Only 119 of an expected 5,100 young people (2%) enrolled to receive SMS messages. Program documents highlighted the difficulty of recruiting participants for new media interventions. Key issues identified in recruitment included under-resourcing, delays due to ethics, and challenges of school-based recruitment.

Conclusion

The minimal impact of the SHY program illustrates the need for improved research translation in the field of new media interventions. It is important that recruitment procedures align with the convenience and appeal of mobile-phone based interventions.

So what?

New media research is not always easily translated into community settings. Large-scale recruitment requires adequate resourcing and careful planning, even for low-cost mobile interventions. Stronger formative research, documentation and use of partnerships are essential for successful implementation. Researchers must also consider translation in planning and disseminating their work.

Introduction

SMS has been widely used for delivering health interventions due to its popularity, convenience, low cost and ability to deliver information privately and anonymously(1). While research has demonstrated efficacy for SMS in positively influencing a range of health behaviours in scalable designs (1, 2), documented attempts to translate such programs outside of research settings, where health promotion work predominantly operates, are rare. In this paper, we discuss translational challenges for new media interventions, using the Sexual Health & Youth (SHY) SMS project to illustrate particular challenges relating to recruitment and evaluation.

The SHY SMS project

The SHY SMS-based sexual health promotion project was created as part of the Sexual and Reproductive Health Strategy (2009-2012) for the Gippsland area of south-eastern Victoria. The project's design and message content of the were based on previous research and involved sending

sexual health-related SMS messages monthly for 12 months(3, 4). SHY was delivered by headspace Central West Gippsland (CWG) between September 2012 and September 2013, aiming to increase knowledge, awareness and uptake of sexual health care seeking and sexual health protective behaviours among 5,100 young people (aged 15-25 years) in the region. Recruitment strategies included face-to-face outreach in community settings, print and social media advertisements, recruitment through secondary schools and tertiary education settings; and peer referrals.

The West Gippsland Health Care Group Ethics Committee approved SHY. All participants were invited to complete online pre- and post-intervention questionnaires covering demographic information, Sexually Transmitted Infection (STI) testing history, STI knowledge, and sexual behaviours. The post-intervention survey also assessed acceptability of SMS messages sent during the project. Questionnaire data were sent to external researchers [Burnet Institute] for descriptive analysis using Stata V13. headspace CWG also conducted focus groups but these were not recorded and no results were provided.

Only 119 young people enrolled for SHY messaging, just 2% of the initial goal. Forty-one individuals completed the pre-intervention survey and 20 completed the post-intervention survey. No significant differences were observed in STI testing or sexual risk behaviours between the pre- and post-intervention surveys. The low reach of the project and the low participation rates in the evaluation surveys thwarted our planned assessment of the project's impact.

Most evaluation survey participants agreed that they learned something from the messages (n=11, 55%) and that the messages were interesting or entertaining (n=12, 60%). Only one participant said they would not want to receive further messages. Similar acceptability was demonstrated during the original message development and testing (3, 4).

Following the delivery of the program, available documents (progress reports, communications with project staff, ethics submissions and reporting) were analysed thematically to elucidate the barriers to implementation.

Translational challenges to implementing new media research

The SHY project implemented an acceptable, evidence-based strategy to address a clear need in the population, yet it achieved little impact. Our experience with this program highlights the need for improved research translation for new media interventions outside of research settings.

A key lesson from this study relates to the challenge of recruiting for new media studies, as pinpointed in program documents. Large-scale recruitment requires adequate human and financial

resourcing even if the intervention itself is cheap to deliver, and the effort required to engage communities should not be underestimated. The resources allocated to SHY were modest, and further reduced by unexpected delays related to ethics approval.

Schools were expected to be a primary source of recruitment, however this proved challenging. The region's 23 schools include 10 public schools; despite receiving Department of Education approval, only one allowed a presentation to students and only one student returned a parental consent form as required by ethics. A further 13 schools were excluded due to permissions not being granted, or non-response. While schools represent the ideal target audience for this project, the logistic and bureaucratic barriers should be considered in program planning. Sexual health is a sensitive topic, and a long lead-in time is required to negotiate acceptable access to school students(5). O'Donnell et al.(6) documented their experiences in obtaining written parental consent, and noted that while high rates of consent can be obtained in rural schools, this requires significant planning and resources. Tigges(5) showed that typical rates of parental consent in schools are between 30-60%. Tigges notes that this can be improved significantly using of incentives, extensive follow-up and passive consent procedures, which require parents to sign and return a form to prevent their child(ren) participating(5). This option could be considered in future, if permitted by ethics bodies. Ongoing partnerships between researchers, service providers and schools would enhance the viability of schools as recruitment settings, and could reduce the lead-in time required to negotiate access to students. However, alternative recruitment methods should also be strengthened so as to not rely heavily on school-based recruitment, and ensure that programs reach young people not enrolled in school.

Other recruitment strategies were similarly limited in success, with suitable settings difficult to identify. The original research on which SHY was based employed 20-25 staff and a large market stall to recruit over 1000 people at a major music festival(3). In contrast, SHY had few resources and only two staff available for recruitment efforts; further, no equivalent event could be identified in the region. Recruitment at shopping centres proved difficult due to young people being accompanied by their parents, while stalls at other community events garnered little attention. Recruitment staff attributed this to cultural attitudes, and lack of incentives for participation. Other requests to recruit in the community were denied, with one agency stating that the 'project did not align with their community values'. Considering the sensitivity of this issue, greater engagement of partners and community stakeholders could have strengthened SHY's recruitment, particularly through advertising at local services and other community settings. This would have enhanced advertising exposure for young people, and demonstrated community endorsement of the project. Stronger

formative research might have assisted in the identification of suitable and acceptable recruitment settings. The use of a youth steering group is one strategy successfully implemented in another similar project to ensure relevance and suitability of project and evaluation measures(7).

While young people typically engage well with new technologies, the method of engaging them in a project needs to be appealing and convenient. Traditional methods of face-to-face approach and hardcopy consent forms may negate the intended benefits of the intervention itself – convenience, privacy, cost and the engagement of young people through their preferred media(8). Innovations in this domain include the use of SMS as the sole communication method for identifying and recruiting participants, intervention delivery and evaluation(9). While this method has limitations, it highlights opportunities for innovation that could apply well to community settings and reduce the aforementioned barriers. Social media, including Facebook, has emerged as a viable source of recruiting participants, with many examples of its use for successful recruitment for large-scale surveys, predominantly using paid advertising(10-14). Archives show that headspace CWG posted four recruitment advertisements on Facebook over eight months, but achieved only four 'likes' and no peer-sharing; how many young people were exposed to the posts remains unknown. Further investigation is required to guide the use of Facebook for enrolment of participants in offline programs, although lessons from qualitative research suggest that response rates are likely to be low(15-17). Comprehensive formative research might assist in developing recruitment strategies which are appealing and feasible.

Finally, it is critical that comprehensive records of planning, implementation and evaluation are kept. A wealth of knowledge was lost in the SHY program due to staff turnover and lack of documentation (e.g., the loss of focus group data. A stronger partnership between the researchers and practitioners might have improved translation and facilitated a more thorough and valuable evaluation. The advantages of strong partnerships between practitioners and researchers are well known, especially in the context of community-based participatory research literature(18). However, such partnerships can be difficult, and documented challenges include time restraints, balances of power and decision-making and misaligned vision between community partners and academic researchers. In the case of SHY, where the partnership operated predominantly at a consultation level, researchers' need to seek ethics approval created a significant unforeseen delay in project implementation. A clear lesson here is that partnerships can be beneficial for translation but require planning and commitment from both parties.

Conclusion

While it would be easy to dismiss the SHY program as unsuccessful due to poor reach and consequent minimal impact, we posit that it is more useful to discuss how research and health promotion can improve translation and application of these methods. We make the following recommendations to improve the implementation of new media interventions by community-based organisations:

- Create objectives that reflect the available resources. While SMS interventions cost little to implement, recruitment and evaluation require substantial effort;
- If populations are difficult to reach or topics are sensitive, conduct formative research to determine feasible and acceptable methods of recruitment;
- Consider the challenges of school-based recruitment, and seek guidance from the literature on how to best engage and build relationships with schools and parents;
- Devise recruitment strategies that align with the convenience and privacy SMS health promotion is intended to offer;
- Keep comprehensive records of formative research, project planning, implementation and evaluation. This is especially important if workforce turnover is high;
- Strengthen partnerships between community organisations and researchers to facilitate rigorous evaluations, and the ongoing development of best-practice methods for translating new media interventions; and
- Document and share findings of new media interventions in research and community settings.

Finally, it is essential that researchers consider external research translation. While we face constant pressure to keep up with innovations in the field of new media interventions, we must understand how our work is perceived outside of a research setting, and endeavour to create interventions that are replicable in the real world. A major aspect of the appeal of technology-based interventions is their scalability, so translation should be a priority.

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