

Social media for sexual health – Extended abstract

Panel Title: Global frames in public health opinion and advocacy

Author: W. Douglas Evans, Ph.D.

INTRODUCTION

The *Bedsider* (bedsider.org) branded sexual health social media campaign in the USA aims to demystify birth control, help women find their preferred method of birth control, and to use it consistently and effectively. Participants enroll online or through text messaging (SMS). *Bedsider* uses a mobile website, SMS, social networking and other applications to increase contraceptive use. This represents a new multimedia approach to behavior assessment and change. Based on Social Cognitive Theory, planned evaluation research will examine receptivity to *Bedsider* messages; related knowledge, attitudes and beliefs; and contraceptive use among individuals who are enrolled and a non-enrolled comparison group. In this paper, we describe the *Bedsider* strategy and evaluation research protocol.

The purpose of this project is to design and implement a pilot evaluation of a new component to the *Bedsider* (bedsider.org) branded program to promote sexual health and wellbeing through the dual use of a method of birth control plus a condom to prevent STIs. *Bedsider* is a new program of The National Campaign to Prevent Teen and Unplanned Pregnancy (The National Campaign; <http://www.thenationalcampaign.org/>) that targets single women, 18-29, who are in need of reliable information regarding their contraceptive options. The main goals of the program are to help women find a method of birth control that is right for them and to use it more consistently and effectively. *Bedsider* uses humor, talks openly, and aims to normalize contraceptive use by integrating it into a healthy lifestyle. The George Washington University (GWU; www.gwu.edu) and The National Campaign and the Washington Hospital Center (WHC), the largest provider of OB/GYN services in the District of Columbia, will collaborate on the project. We will recruit a sample of young women to evaluate the program, representing a largely low-income, urban population suffering from sexual health disparities and a critical part of *Bedsider's* target audience. Graduate student researchers from GWU and

WHC will play a central role in the project and will aid investigators in developing new sexual health messages for *Bedsider* and in designing and implementing an evaluation of the program. They will work with young women who present for health care at WHC to test *Bedsider* messaging, will gain critical professional development and training, and will be able to use data from the study for their own educational projects and completion of theses and dissertations.

Specific aims of this study are as follows:

- Specific Aim 1: Design, develop, and pre-test a new *Bedsider* messaging component for delivery through social media channels.
- Specific Aim 2: Develop a research team of up to 12 social science and public health master's and doctoral degree students from GWU, and medical and nursing students from WHC, interested in sexual health behavioral interventions, who will assist in development of new *Bedsider* messaging, communication channels, and evaluation design.
- Specific Aim 3: Conduct a 12-month randomized controlled trial (RCT) with young women ages 18 to 29 to test the impact of new *Bedsider* social media messages on dual method contraception.

METHODS

Bedsider messaging

Currently, Washington Hospital Center (WHC) provides obstetrics/gynecological (OB/GYN) services to Medicaid-eligible teens and young adults through a Women and Infants Services (WIS) clinic. The WIS program represents best practice as described in recent research literature. Notably, Klerman's 2004 report to The National Campaign to Prevent Teen Pregnancy, *Another Chance: Preventing Additional Births to Teen Mothers*, found that programs following 7 best practices used at WHC are most likely to be successful. The *Bedsider* social media intervention builds on these best practices.ⁱ The intervention consists of an existing, innovative social support network system called (Bedsider.org) developed by The National Campaign. Working with the GWU graduate student research team (Specific Aim 2), this project seeks to develop a new set of *Bedsider* messages that are aligned with the current tone of

messages delivered through the *Bedsider* program and, in addition, address *dual contraceptive method use*. Dual method use refers to concurrent use of a condom and contraceptive method. These new messages will be delivered through one or more of the following channels: mobile web, mobile application, mobile SMS, social media, email, and web. **The purpose of the new messaging is to continue the re-framing of sexual health communication begun in the original *Bedsider* program by using a fun and engaging tone that is difficult to ignore. Sent on a regular basis, these messages deliver a spoonful of ‘medicine’ with a lot of ‘sugar’. The medicine contains a fun and playful reminder to practice dual method use when having sex.**

In an evaluation of the new program, *Bedsider* plus the new dual method use messaging will be compared to the existing *Bedsider* alone and to a control group. All participants will receive usual OB/GYN clinical care. We will evaluate the additive effects of *Bedsider* plus new messaging and in raising awareness of contraceptive options, building skills to use the dual method, promoting participants’ self-efficacy to effectively communicate with significant people around them, and modeling sustained avoidance of subsequent pregnancy. The new messaging will complement *Bedsider* by addressing the full range of best practices noted by Klerman (2004) and in recent research,ⁱⁱ while *Bedsider* focuses on promoting contraception as part of a satisfying and healthy sexual lifestyle.

Bedsider uses social media to deliver messages, including SMS, the *Bedsider.org* site, and multimedia components including a mobile phone application (app). *Bedsider* uses a health branding approach to encourage contraceptive use.ⁱⁱⁱ We will design the new text messages to complement *Bedsider* by promoting existing clinic-based WHC services, which reflect best social, behavioral and clinical practice, and we posit that increased engagement with evidence-based pregnancy prevention behaviors will be reinforcing and encourage emulation. Based in part on Social Cognitive Theory (SCT), branding serves as a protective factor to prevent risk behaviors.^{iv} The proposed new messaging will build and extend the *Bedsider* brand and increase engagement with its online and mobile health tools to increase contraceptive utilization.

Formative research

To develop the messages, we will conduct formative research with youth and young adults in the target age range living in the same geographic area of Washington, DC. These young people will form a ‘youth advisory group’ of approximately 9 youth who will advise on message development as development proceeds. We plan on two rounds of interviews in which the youth advisors will review, comment, and provide feedback on draft messages. Results will be used to craft the final messages. Graduate student researcher will conduct all the interviews.

This approach is innovative in that it utilizes new mobile technologies to reach a population that significantly underutilizes contraception overall and dual method in particular. At the Stanford Mobile Health 2011 conference (<http://mobilehealth.org/>), presenters noted that while there has been tremendous growth in mobile health outcomes research generally, there has been virtually none in the area of reproductive health. Yet the population most at risk—low-income, urban young women targeted by the proposed intervention—are among the highest users of mobile phones for texting, Web access, and related applications. Thus, the intervention has tremendous reach with the population of interest and the potential to significantly advance the science of sexual and reproductive health communications as well as outcomes research in mobile health.

Evaluation

The intervention will be evaluated in an RCT with a sample of 18- to 29-year-old female patients. Recruited evaluation participants will be randomized to receive (1) the combined *Bedsider* plus new messaging (*Bedsider* + new messaging) plus usual WIS services; (2) original *Bedsider* plus usual services (*Bedsider* only); or (3) usual services only with no intervention (control). All study participants will be surveyed in person at baseline prior to the intervention and at two follow-ups at 6 and 12 months post-baseline. We will measure three primary outcomes: (1) dual use contraception, (2) long-acting reversible contraceptive (LARC) use; and 3) occurrences of STIs. Additionally we will measure subsequent and repeat pregnancy as important outcomes. Currently, there are 275 active WHC patients in WIS services. Of those, 47 are pregnant, leaving 228 eligible for contraception counseling. Of those, 119 (or 52.2%) are using a LARC method (Depo/DMPA, Implanon, or IUD).

We will recruit young women ages 18 to 29 from the clinic beginning in month 7 of the grant. Rolling recruitment will continue for an anticipated 12-month period, based on current intake rates. After completing informed consent to participate, we will randomize them to *Bedsider* plus new messaging, existing *Bedsider*, or control conditions. Baseline surveys will be completed by telephone prior to initiation of any messaging. All participants in the two intervention arms will be required to have a ‘smart phone’ (i.e., cellular phone with advanced computing capability including an operating system to run applications). Based on a November 2011 survey of patients at WHC, 63 out of 71 (89%) already had a smart phone. Participants in all conditions will receive a small incentive for completion of each survey in the form of a retail store gift card. Exhibit 1 shows the experimental design.

Exhibit 1. Randomized Experimental Design

<u>Experiment Condition</u>	Survey Wave (sample size)		
	<u>Baseline</u>	<u>6-Month Follow Up</u>	<u>12-month Follow Up</u>
Usual Care Only	150	135	120
<i>Bedsider</i>	150	135	120
<i>Bedsider</i> + new messaging	150	135	120

Student Training Support and Activities

We will recruit a group of up to 12 graduate students from across the social science departments, GWU SPHHS, and WHC medical and nursing students. Eligible students will be those interested in sexual and reproductive health, having previous experience in conducting social science and behavioral research (eg, as a research assistant), and being either a master’s or doctoral level graduate student in a relevant social science, behavioral sciences, or health sciences discipline. The graduate student research team will work closely with the investigators. They will play an integral role in the project as designers, researchers, and implementers of the study and will participate actively in dissemination and strategic communication efforts.

Strategic Communications Effort

There are 3 legs to our strategic communications effort. First, *Bedsider* has widespread reach through social media. Bedsider.org (and linked sites) had nearly 90,000 unique visitors in December 2011. We will utilize the bedsider.org platform to disseminate the project and results. We will also use *Bedsider's* twitter feed, texting, blog posts on bedsider.org and other channels utilized by the program to reach individuals who follow *Bedsider*.

Second, the graduate student research team will play an integral role in strategic communications. They will participate in developing content for the *Bedsider* channels cited earlier. They will also develop a new Website and social networking groups on Facebook and LinkedIn to disseminate the project. The new Website will be a platform for dissemination of project materials (e.g., white papers and briefings), video and audio clips from news media coverage, and links to published articles and presentations resulting from the project.

Third, we will translate research findings into news media consumable materials and into briefing papers and other more in depth materials appropriate for a lay and policy maker audience. These materials will help to disseminate the project beyond scientific circles and to the general public.

RESULTS AND DISCUSSION

In addition to establishing the effectiveness of *Bedsider* dual use method messaging as a distinct component of the larger branded program, this project will lead to several overarching results over time.

Professional Development

The major professional development impact of this project will be creation of a cadre of sexual health program and research professionals who are prepared to assist in major national efforts such as those of The National Campaign to promote reproductive health. The graduate student research team will be prepared to design innovative programs using cutting edge technologies, conduct relevant health research, and take on leadership roles in reproductive health programs and research in future. They will be prepared to pursue advanced careers, have solid experience on their curriculum vitae, and receive valuable job recommendations.

Graduate Student Training

The major training impact of this project will be development and specialized training of GWU graduate students in sexual health research and social media intervention design. Students will have unique experiences in creation of the project, in which they will gain invaluable preparation in program development and research design and implementation. They will also gain data for use in their graduation requirements, including master's and doctoral theses, and related projects. Finally, they will gain strategic communication experience and will participate in publications, further enhancing their professional credentials and future career prospects.

Public Policy and Public Conversation:

Strategic communication activities, and results of the evaluation, will change the frame within which the public thinks about sexual health issues and will encourage policy change. *Bedsider* seeks to change the conversation around contraceptive use by making it fun, current, and something everyone is interested in and doing. Contraceptive use will become normal and something people talk about, not an 'off limits' subject. **By reframing contraceptive use in this way, it can be rebranded much as breast cancer was rebranded by the Susan G. Komen Foundation's *Race for the Cure* as an important issue for public attention rather than a taboo topic.** By disseminating the program and results through social networks, the project website, and news coverage, we will begin to change social norms and discourse on contraceptive use.

This project also has substantial implications for public policy. If shown effective, *Bedsider* will demonstrate that contraception promotion programs can be effectively branded and can change public perceptions and social norms. This in turn will lead to greater public awareness and support for funding contraception promotion, and provide an impetus for future public health initiatives and funding. *Bedsider* can be a model for future public health campaigns across sexual and reproductive health and can become a major part of HIV/STI prevention strategies. In urban areas with large at risk populations, public policy can support development of community-based contraception programs that reduce health disparities. In the District of Columbia, with the highest HIV infection rate of any city in the USA, increased policy support for condom and other contraception programs can save lives and reduce the burden of health care costs, thus improving public health and economic opportunity.

ⁱ Klerman, L. V. (2004). Another chance: Preventing additional births to teen mothers. Washington, DC: National Campaign to Prevent Teen Pregnancy. Retrieved May 10, 2011, from <http://www.thenationalcampaign.org/>.

ⁱⁱ Blank, L., Baxter, S. K., Payne, N., et al. (2010). Systematic review and narrative synthesis of the effectiveness of contraceptive service interventions for young people, delivered in educational settings. *Journal of Pediatrics and Adolescent Gynecology*, 23, 341–351.

ⁱⁱⁱ Evans, W.D., Blitstein, J. Hersey, J., et al. (2008). Systematic Review of Public Health Branding. *Journal of Health Communication*, 13(8):351-360.

^{iv} Evans, W. D., & Hastings, G. (2008). *Public health branding: Applying marketing for social change*. Oxford: Oxford University Press.