Published in final edited form as:

J Consum Health Internet. 2012 ; 16(1): 66–76. doi:10.1080/15398285.2012.647975.

Learning Curves: Making Quality Online Health Information Available at a Fitness Center

Montie T. Dobbins, Talicia Tarver, Mararia Adams, and Dixie A. Jones

Abstract

Meeting consumer health information needs can be a challenge. Research suggests that women seek health information from a variety of resources, including the Internet. In an effort to make women aware of reliable health information sources, the Louisiana State University Health Sciences Center – Shreveport Medical Library engaged in a partnership with a franchise location of Curves International, Inc. This article will discuss the project, its goals and its challenges.

Keywords

women's health; Curves International, Inc.; consumer health; health information seeking

Introduction

The Louisiana State University Health Sciences Center – Shreveport (LSUHSC-S) Medical Library has a rich outreach history of obtaining financial awards to place computers in different venues and then training users to find reliable consumer health information on those computers. In 2010, an application for a similar type of outreach project was submitted to fund placement of a computer in a women's fitness center. The site selected was Curves North Bossier, a local center that is part of Curves International, Inc., the “largest fitness franchise in the world.”¹ The sponsoring agency was the National Network of Libraries of Medicine, South Central Region (NN/LM SCR). The decision to partner with a women's fitness center was based on two factors: 1) the belief that women in an exercise program would be likely to have an interest in reliable health information and 2) the imminent launch of the library's new “Women's Health” page at its consumer health information site, *healthelinks* (<<http://healthelinks.org>>). The library has worked with the underserved at free clinics, with senior citizens in retirement communities, with health care providers in rural hospitals, and with children at public libraries, but had no previous experience with a solely female population or a setting such as a fitness center. Thus, the target population and setting for this particular project were new to the library staff.

Literature Review

Women obtain health information through various media, such as magazines, books, television and the Internet as well as through other people—health professionals, acquaintances and family members. The quality of this information is uneven and the

¹Corresponding: Montie T. Dobbins, MLIS, AHIP (mdobbi@lsuhsc.edu) is Head, User Access Services; Talicia Tarver, MLIS (ttarve@lsuhsc.edu) is Digital and Information Services Librarian; Mararia Adams, MLIS (madams@lsuhsc.edu) is Assistant Director, Systems; and Dixie A. Jones, MLS, AHIP (djon17@lsuhsc.edu) is Associate Director; all at Louisiana State University Health Sciences Center Library, P.O. Box 33932, Shreveport, LA, 71130-3932, USA.

This paper is based on poster sessions presented at annual meetings in October 2010 at the South Central Chapter/Medical Library Association in Austin, Texas and in May 2011 at the Medical Library Association in Minneapolis, Minnesota.

audience for it, even among an educated population, does not necessarily have the knowledge or skills to assess it. Many women get health advice from popular media such as consumer magazines targeted to female readers. Moyer published a study in 2001 analyzing health-related information in two widely-circulated women's magazines. Weight loss was the most common health-related topic followed by fitness, healthy eating, children's health, and hormone replacement therapy. However, when the authors analyzed information requests of women at the University of Michigan's Women's Health Resource Center, they found that the topics of their requests more closely matched the women's health information presented in two major medical journals than the topics presented in these two women's magazines. The study also showed that while the magazines sometimes cited studies in their health-related articles, they often did not provide the names of those studies or information about where they were published.² Another United States study examined cardiovascular health information in four magazines largely read by young women (ages 18-34) for consistency with American Heart Association (AHA) guidelines. Of the 236 articles reviewed, none were found to give advice contrary to the AHA guidelines; however, some received low ratings for their lack of specificity.³ A study in England reviewed the complementary and alternative medicine (CAM) information in fifteen publications and found that out of 150 articles on CAM therapies, 131 were written by contributors with no medical qualifications.⁴ These studies indicate that teens' or women's magazines might not be the best sources of health information for females.

Women also obtain health information from the Internet. According to *The Social Life of Health Information, 2011*, 65% of females look online for health information.⁵ In a study of women in rural Canada, most reported that for online health information, they relied on keyword searches performed in popular search engines rather than going directly to medical sites. They used the information "to reassure themselves, acquire knowledge about health conditions on behalf of themselves and others, and prepare for interactions with health professionals."⁶ In another study of rural women, findings showed that "even for those who were heavy Internet users, the volume and complexity of health information available (via the Internet and otherwise) often posed significant challenges."⁷ Zeng, et al, observed 97 consumers, both male and female, searching for health information on the Internet and discovered that only about 30% of the participants found the information they sought.⁸

In their report on the impact of health literacy on women's health, Shieh and Halstead noted that about 36% of U.S. adults have basic or below basic health literacy levels. They maintain that educating women to improve their health literacy is a way to increase their health knowledge, self-efficacy, and self-advocacy.⁹ Furthermore, Warner and Procaccino conducted a study of the information seeking process that women use to fill health information needs and identified a role for information providers in connecting women with reliable information. They addressed the issues of women's health information seeking behavior, as well as women's awareness of quality health information resources. Their findings revealed that the women in their study population were indeed active seekers of such information but that there was a low level of awareness of medical information resources, including MedlinePlus. They concluded that information providers have opportunities to be more proactive in seeing that women obtain reliable health information.¹⁰

Considering the needs identified in the literature, the aim of this outreach project was to educate the subject population about trustworthy sources of online health information at appropriate literacy levels that could be accessed quickly and efficiently at the fitness center, in their homes, or on their mobile devices.

Project Description

NN/LM SCR granted Curves North Bossier and the library an Express Consumer Health Outreach Award. Because Curves North Bossier already had a space, furnishings and an Internet connection, the library used part of the funds to purchase computer equipment and supplies, including a printer. This equipment allowed members to access the consumer health information while still at the fitness center. Printing capability enabled members to take printouts of the information they found with them.

In addition to providing computer equipment and supplies, the library developed and purchased promotional items for Curves members. A promotional poster was created and hung on the wall at Curves North Bossier to publicize the availability of health information through *healthelinks* on the computer purchased for the fitness center (see Figure 1). A rack filled with *healthelinks* brochures was conveniently placed next to the computer.

Because the Curves North Bossier franchise was a CurvesSmart location the library developed a unique promotional item for the 129 members. CurvesSmart participants are issued bar coded tags which they keep either on a bracelet or key ring. This bar code allows the member to keep track of the intensity of their workouts on each machine so they can track their progress on a Curves computer. The library developed a key tag with information for *healthelinks* (see Figure 2). The key tags were distributed to members to attach to either their CurvesSmart bracelet or personal key ring. The thought behind the key tags was that the members would have a copy of the website's URL that was readily available even when away from the Curves facility. Later, computer shaped stress balls with the *healthelinks* logo and URL were designed and distributed to members (see Figure 3).

Creation of Healthelinks

While waiting for the arrival of the computer equipment and promotional materials, the library worked with the *healthelinks* site developer to finalize content for the new Women's Health section. *Healthelinks* was first developed in 2003 in collaboration with the Webster Parish Library System in northwest Louisiana to help public librarians and their patrons connect with suitable health information.¹¹ Designed to be an easily-navigated web portal, the first *healthelinks* site categorized information based on six broad topics:

- Health resources for Louisiana residents
- Directories to healthcare facilities, organizations, and providers
- Lists of diseases and conditions
- Reliable drug information
- Therapies and diagnostic procedures
- Federal entities

The site maintained this basic categorization of information even as the library developers began adding features for specific patient groups. In 2009, an outreach program was implemented to focus on children's health. In support of this outreach project, a Kid's Health section was added to the portal. Other specialized sections now include information on senior health, end of life issues, environmental health, and resources in Spanish.

In keeping with the site's development to inform specific groups, the women's health section provides links to information sources pertinent to pregnancy, childbirth, and family planning (see Figure 4). There are links for relevant prevention subject matter, including bone density scans, mammograms and pap smears. The mental health section connects women to

resources that deal with topics that include eating disorders, caregiver stress, and insomnia. There is also a section on the women's health page that links women to information regarding different life stages. Features on the page that could be of particular interest to the fitness center's participants include the "Wellness" link, which opens to a page on topics, like general wellness, nutrition, and exercise and physical activity.

Providing Healthelinks Access and Instruction at Curves

In September 2010, equipment consisting of a computer, monitor, and printer as well as toner and paper were delivered to and set up at the selected Curves facility. The necessary software was loaded by the Systems staff at LSUHSC-S Library prior to delivery at Curves North Bossier. The software included Microsoft Office Professional 2010, Adobe Acrobat Professional 9, and Virus Scan Total Protection 2011. The computer was placed in a room separate from the workout room to give privacy to those members who might be searching for information on sensitive health care topics. A brochure rack for *healthelinks* brochures was also placed beside the computer. The location provided a buffer from the workout music and was better suited for the compulsory furniture, outlets and Internet connections needed to support the equipment.

Sessions for training with the LSUHSC-S librarians were publicized, but ultimately a train-the-trainer session was conducted for the two staff members. The librarians have successfully used this method of training in the past when working with staff at retirement communities and health care providers at rural hospitals, as well as with staff at free clinics which care for the underserved. Train-the-trainer sessions are beneficial because they allow librarians to show facility personnel how to use the resources, and those people can in turn educate other users.

To record the level of use of and satisfaction with *healthelinks*, a computer log requesting the date, time, sites visited and whether or not the user found the information they sought was placed next to the computer. The intent of providing the log was so that users would self report on their search and whether or not they found satisfactory information from those searches. Although the log was in place from October to November 2010, only a handful of entries were entered. Nonetheless, all of the entries reported success in finding information related to the searches. While the original idea was to place the computer in a separate room from the workout area to provide a semi-private space, not having someone at the computer to remind users to sign the log probably contributed to members not signing it. The staff member on duty is usually in the workout area to assist with the fitness equipment. The owner of Curves North Bossier did report anecdotally that members were using the computer and printing out the information they found.

Solutions to Unforeseen Complications

One major complication arose during the period of this funded project: the Curves North Bossier franchise closed. Fortunately, the owner of that location was proactive in helping the LSUHSC-S librarians find another Curves owner who was interested in continuing the project. With permission from the funding agency, the equipment was transferred from the Curves North Bossier franchise to the Curves North Market location in Shreveport, LA in January, 2011. Librarians conducted another train-the-trainer session with the owner of this franchise in February, 2011.

In addition to providing members with the same brochures and key tags originally distributed at the Curves North Bossier location, the Curves North Market facility received handouts with the mobile MedlinePlus FAQ and computer-shaped stress balls with access information for *healthelinks*. The owner of the Curves North Market location reported that a

couple of members who were school teachers had taken additional key tags so that they could distribute them at their schools—a back door approach to reaching another audience. As with the Curves North Bossier franchise, the owner of this location reported anecdotally that the facility's 198 members were using the computer and printing information, taking brochures, and taking the key tags.

This project was a learning experience for the librarians. While fitness centers were not necessarily conducive to computer classes for the members, train-the-trainer sessions were successful. With training, the staff members were able to individually help members with using *healthelinks* and MedlinePlus. Also, though the computer log was placed next to the computer with a request for people to record their information, very few did. A solution to this problem might be to have a person to monitor the workstation and remind users verbally to provide feedback.

Though the initial Curves location closed, it was encouraging that the project could continue at another franchise location. The owner of the closed franchise was very helpful in securing another site. Staff members at both locations verbally reported that members were using the computer and printing out information, taking brochures and taking the key tags. In fact, the Curves North Market location reported that from mid-January 2011 to mid-February nearly ninety key tags were distributed. While having to change facilities was not in the plans, it did have the unexpected benefit of allowing librarians to reach more people because of the change of location.

Future

Though this project has now closed, the LSUHSC – S librarians would like to work with other unique organizations outside of the clinical, hospital or library setting. Future projects for consideration include working with the Girl Scouts of Louisiana in regards to nutrition programming and the YMCA of Northwest Louisiana with their focus on healthy bodies and minds. Librarians will use *healthelinks* in partnerships such as these in an effort to continue educating consumers about reliable online health information resources.

Acknowledgments

The authors would like to thank Mark Baggett for his assistance in this project and Michael Watson for his work creating the Women's Health portion of the *healthelinks* website. Special thanks also to the Curves franchise owners, Amy Walker (Curves North Bossier) and Sandie Smoak (Curves North Market), for working with us on this project.

This project has been funded in whole or in part with Federal funds from the National Library of Medicine, National Institutes of Health, Department of Health and Human Services, under Contract No. N01-LM-6-3505 with the Houston Academy of Medicine – Texas Medical Center Li

References

1. [Accessed: June 13, 2011] About Curves. Overview. Available: <<http://www.curves.com/about-curves/overview.php>>
2. Moyer CA, Vishnu LO, Sonnad SS. Providing Health Information to Women: The Role of Magazines. *International Journal of Technology Assessment in Health Care*. 2001; 17(no. 1):137–45. [PubMed: 11329840]
3. Turner MB, Vader AM, Walters ST. An Analysis of Cardiovascular Health Information in Popular Young Women's Magazines: What Messages Are Women Receiving? *American Journal of Health Promotion: AJHP*. Jan-Feb;2008 22:183–6. [PubMed: 18251119]
4. Mantle F. The Risks Associated with Consumer Magazines Giving Advice on Complementary Therapies. *Nursing Times*. Dec 8.2009 105:19–21. [PubMed: 20050469]

5. Fox, S. The Social Life of Health Information 2011. Pew Research Center's Internet & American Life Project; May 12. 2011 Available:
<http://pewinternet.org/~media/Files/Reports/2011/PIP_Social_Life_of_Health_Info.pdf>
6. Harris R, Wathen N. 'If My Mother Was Alive I'd Probably Have Called Her.' Women's Search for Health Information in Rural Canada. *Reference Services Quarterly*. 2007; 47(no. 1):67–79.
7. Wathen CN, Harris RM. 'I Try to Take Care of It Myself.' How Rural Women Search for Health Information. *Qualitative Health Research*. May.2007 17:639–51. [PubMed: 17478646]
8. Zeng QT, Kogan S, Long N, Greenes RA. Relationships among Different Subjective Measurements of Consumer Health Information Retrieval Performance. *Studies in Health Technology and Informatics*. 2004; 107(pt. 2):1328–32. [PubMed: 15361030]
9. Shieh C, Halstead JA. Understanding the Impact of Health Literacy on Women's Health. *Journal of Obstetric, Gynecologic, and Neonatal Nursing: JOGNN / NAACOG*. Sep-Oct;2009 38:601–10.
10. Warner D, Procaccino JD. Toward Wellness: Women Seeking Health Information. *Journal of the American Society for Information Science and Technology*. Jun.2004 55:709–30.
11. Pernotto DA, Watson MM, Jones DA, Gammill KM. Health e-Links: A Pilot Program for Delivering Electronic Health Information (EHI) to Consumers in Rural Areas Through a Partnership with Louisiana Public Libraries. *Journal of Consumer Health on the Internet*. 2003; 7:13–21.

Figure 1. Promotional Poster

Figure 2. Healthelinks key tags distributed to Curves members

Figure 3. Computer-shaped stress balls distributed to Curves members

Figure 4. Healthelinks Women's Health page

Figure 5. Librarians conduct a train-the-trainer session at Curves North Bossier

Figure 6. Librarians conduct a train-the-trainer session at Curves North Market