



Evidence Summary

Personalized Information Service for Clinicians: Users Like It

A Review of:

Jerome, Rebecca N., Nunzia Bettinsoli Giuse, S. Trent Rosenbloom, and Patrick G. Arbogast. "Exploring Clinician Adoption of a Novel Evidence Request Feature in an Electronic Medical Record System." *Journal of the Medical Library Association* 96.1 (Jan. 2008): 34-41, with online appendices.

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Abstract

Objective – To examine physician use of an Evidence-Based Medicine (EBM) literature request service available to clinicians through the institution's electronic medical record system (EMR). Specifically, the authors posed the following questions: 1) Did newly implemented marketing and communication strategies increase physicians' use of the service? 2) How did clinicians rate the relevance of the information provided? 3) How was the information provided used and shared?

Design – Ten-month, prospective, observational study employing a

questionnaire, statistics, a focus group, and a "before and after marketing intervention" analysis.

Setting – Adult primary care outpatient clinic in an academic medical centre.

Subjects – Forty-eight attending and 89 resident physicians.

Methods – In 2003, a new service was introduced that allowed physicians in the Adult Primary Care Center clinic to request evidence summaries from the library regarding complex clinical questions. Contact with the library was through the secure messaging feature of the institution's

electronic medical record (EMR). From March through July 2005, the librarian employed "standard" publicity methods (e-mail, flyers, posters, demonstrations) to promote the service. A focus group in July 2005 provided feedback about the service as well as recommendations about communicating its availability and utility. New communication methods were implemented, including a monthly electronic "current awareness" newsletter, more frequent visits by the librarian during resident clinic hours, and collaborations between the librarian and residents preparing for morning report presentations. At the end of the study period, a 25-item Web-based questionnaire was sent to the 137 physicians with access to the service.

Main Results – During the 10-month study period, 23 unique users submitted a total of 45 questions to the EBM Literature Request Service. More questions were from attending physicians than residents: 36 (80%) vs. 9 (20%). At least one of the 23 users asked 12 (26%) of the questions. Utilization did not significantly change after the mid-study intervention. At the end of the study, 48 physicians (35%) completed the survey (32 attending physicians and 16 residents). While 94% of the respondents indicated awareness of the service, only 40% indicated using it. The 19 who used the service, on average, agreed that the information provided was relevant and "sometimes leads to a change in my clinical practice" (p.37). Those who indicated that they shared the information (n=15) mostly did so with other attending physicians and residents, but also mentioned sharing with fellows, patients, and nurses. Information was typically shared verbally but also by distributing a printout, forwarding by e-mail, and forwarding within the EMR message system. The information was used primarily for general self-education, instruction of trainees, and confirmation of a current plan.

Conclusion – The newly implemented marketing and communication strategies did not significantly increase the use of the EBM Literature Request Service. Those who used the service found it relevant and often shared the information with others. Based on a small number of respondents and survey information, the librarian-provided EBM Literature Request Service was "well-received" (39).

Commentary

Jerome et al. present a detailed account of their study and results. There is extensive data analysis and many comparisons between attending physicians' and residents' responses with statistical significance levels reported, but the number of respondents is too small to be conclusive. The fact that one physician accounted for more than one-quarter of the questions suggests that at least one person found the service very useful. As an early adopter, this physician, as a role model, may be the best marketing strategy for the service.

In their introduction and discussion, the authors emphasize the importance of clinicians' access to current information. By embedding the EBM Literature Request Service in the EMR, the authors have taken an important step in integrating convenient access to information services into the clinical context using technology.

By the authors' account, the service is designed to assist in answering complex clinical questions. The example of a request and response given in the appendix has to do with the natural history of syringomyelia. What the librarian provided was a summary based on several articles from multiple databases as well as links to patient education materials on the Web. Lack of awareness of the service does not seem to be an issue. During this study,

physicians were given gift cards for their participation and considerable effort was invested in promoting the service, yet response and use were low. Low use of the service may be due to a population of physicians used to answering their own clinical questions (something many of us are training them to do), or an environment where physicians don't have many "complex" questions (the outpatient clinic), or the increased availability and use of point-of-care clinical information resources that provide sufficient, if not exhaustive, information (another tool made possible by technology).

Complex clinical questions can take a lot of time to answer; the authors indicate from three to more than ten hours. Satisfaction with the service was high, but it often is when there is no direct cost to the user. But, when asked to pay for the service and the time actually invested, would the program or library director decide it was "worth it"? Many clinical librarian programs that reported high user satisfaction and even demonstrated positive results (1) are no longer in existence either due to general library budget cutbacks or the unwillingness of the department served to assume the real cost of the service. The authors discuss scalability, but cost-benefit is also important. An interesting future study might be to investigate the cost-benefit to *all* participants (clinicians, library, patients) in the provision of specialized information services.

Work Cited

Weightman, A.L. and J. Williamson. "The Value and Impact of Information Provided through Library Services for Patient Care: A Systematic Review" Health Information and Libraries Journal 22 (2005):4-25.