



*Evidence Summary*

*Clinical Librarian Programs May Lead to Information Behaviour Change*

**A review of:**

Urquhart, Christine, Janet Turner, Jane Durbin, and Jean Ryan. "Changes in Information Behavior in Clinical Teams after Introduction of a Clinical Librarian Service." Journal of the Medical Library Association 95 (2007): 14-22.

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**Abstract**

**Objective** – Assess whether the North Wales Clinical Librarian service changed the information behaviour of team clinicians.

Specific objectives were to:

- Assess which services were used.
- Estimate the effects of training on clinician search patterns and search times.
- Examine the benefits of services regarding clinical governance.
- Examine the effects of training on clinician confidence.
- Explore factors affecting librarian-clinician collaboration.

**Design** – Observational, longitudinal evaluation through:

1. Librarian reflective diaries
2. Baseline and final questionnaire surveys
3. In-person and telephone interviews between surveys

**Setting** – Three National Health Service (NHS) Hospital Trusts in North Wales, UK. These included North West Wales, Conwy & Denbighshire, and North East Wales.

**Subjects** – Physicians, nurses, and allied clinical staff working with clinical librarians in one of the above three NHS Trusts.

**Methods** – The evaluation period ran from November 2003 through January 2005. Data collected varied between Trusts, since

program activities varied across locations. Questionnaire data was analyzed with Excel; interview data was analyzed with QSR N6.

*North East Wales/Conwy & Denbighshire:* In these two Trusts, baseline questionnaires were distributed in April 2004; interviews were conducted between July and October 2004, and final questionnaires were distributed in December 2004. Sixty-nine baseline questionnaires were returned from the April distribution, and 57 final questionnaires were returned in December. Additionally, 33 face-to-face and telephone interviews were conducted between July and October.

*North West Wales:* Immediate post-training feedback was collected from 90 participants; questionnaires sent one month after training had only a 32% response rate (24 of 75 questionnaires). Twelve interviews were conducted.

**Results** – Interviews at all sites demonstrated a conflict between wanting the librarian to perform searches for the clinical teams, and the clinicians needing or wanting more independence through greater search skills. The librarian reflective diaries showed a change in practice over the evaluation period. Administrative duties lessened and more time was spent on searching or teaching.

*North East Wales/Conwy & Denbighshire:* Although a greater percentage of medical staff reported using NHS and library Web sites by the end of the evaluation period (70.7% versus 59.4%), a larger percentage felt overwhelmed by the amount of information retrieved (68.3% versus 60.9%). At baseline, more than 50% wished to spend less than 10 minutes on a search of “general importance but not of personal interest” (18), but follow up indicated that the number of physicians expecting to spend that small amount of time had dropped to 36%.

Among nurses and allied professionals, changes in information behaviour were fewer. The interviews confirmed that information provided by a clinical librarian affected patient management and/or therapy; patient diagnosis was not affected. One interview indicated that cost savings had resulted from information provided by a clinical librarian. Forty-five percent of interviewees felt that their search skills had improved.

*North West Wales:* Ninety-nine percent of session attendees rated training programs highly. Although feedback indicated a desire for more training, 88.9% did feel more confident about their search abilities immediately following a program. The one-month-post-training questionnaire had a very low response rate (32%), but over 54% of those responding did believe that their skills had improved. But one month later, 12 interviews reported that “initial enthusiasm had usually tapered off” (20), and those interviewed weren’t sure if they really had better skills.

**Conclusions** – While findings weren’t conclusive, they suggest that having a librarian participate on a clinical team does lead to changes in information behaviour. Staff members were more confident searchers, more willing to search for information, and more willing to delegate that task to a librarian. The study also suggests that library services may be effectively targeted to specific groups of clinicians, and may have an impact on patient care.

### **Commentary**

The authors point out that clinical librarian programs may possibly improve patient outcomes, decrease costs, and save clinician time (14). Previous studies of clinical librarianship have hinted at these positive outcomes, but various methodology issues

make it difficult to associate such outcomes with clinical library services. In their introduction, the authors refer to several published systematic reviews of clinical library programs. Because of the “lack of rigorous comparative research methods” (14), and the “need for higher quality evaluation designs,” (14) these earlier systematic reviews were able to demonstrate only limited impact. This introduction leads the reader of the current study to believe that the investigators have attempted a higher quality study methodology.

Yet the authors of this study chose an observational design of questionable quality. Rather than develop a true comparative evaluation with more objective endpoints, they used surveys and interviews that asked participants to rate their own information skills, time spent searching, and information behaviour change. The subjective nature of these outcomes adds only marginally to the literature on the importance and impact of clinical library programs.

For instance, one of the study objectives was to “examine whether information skills training affected staff skills and confidence” (15). An easy and more objective method of measuring the effect on staff skills would have been to offer a pre-intervention quiz or skills test, and then proctor the same quiz or test at some point after the training intervention. But it does not appear as if investigators measured participant search

skills. Instead, they asked study participants to rate their own skills.

The authors also did not take advantage of the opportunity for comparison that was built in by offering services at three different locations. While assigning participants to study groups based on location does not constitute random allocation, it does present a means of comparing an intervention group or groups with a control group. Authors evaluated programs at three locations, but rather than assign a control group, variable programs were observed at each of the three Hospital Trusts.

While it is difficult to draw generalized conclusions from this study, the authors do recognize and acknowledge that difficulty (21). Perhaps the most important contribution that this article makes to the body of knowledge about clinical librarianship is that it “indicates that health library services can be targeted effectively at particular groups” (21). The fact that the services differed by location, and that some services were more used and appreciated by certain groups than others, may be an important finding. This demonstrates the difficulty in defining “clinical library services” in such a broad manner; perhaps future studies could more easily demonstrate impact on outcomes if the program or service under investigation was a smaller, more targeted intervention.