

Current Research

Heather Ganshorn

Arocha JF, Hoffman-Goetz L. A survey of public health and consumer health informatics programmes and courses in Canadian universities and colleges. *Inform Health Soc Care*. 2012 Apr 19. [Epub ahead of print]. doi: 10.3109/17538157.2011.647937. PMID: 22515267.

Introduction: As information technology becomes more widely used by people for health-care decisions, training in consumer and public health informatics will be important for health practitioners working directly with the public. **Methods:** Using information from 74 universities and colleges across Canada, we searched websites and online calendars for programmes (undergraduate, graduate) regarding availability and scope of education in programmes, courses and topics geared to public health and/or consumer health informatics. **Results:** Of the 74 institutions searched, 31 provided some content relevant to health informatics (HI) and 8 institutions offered full HI-related programmes. Of these 8 HI programmes, only 1 course was identified with content relevant to public health informatics and 1 with content about consumer health informatics. Some institutions ($n = 22$)—which do not offer HI-degree programmes—provide health informatics-related courses, including one on consumer health informatics. We found few programmes, courses or topic areas within courses in Canadian universities and colleges that focus on consumer or public health informatics education. **Discussion:** Given the increasing emphasis on personal responsibility for health and health-care decision-making, skills training for health professionals who help consumers navigate the Internet should be considered in health informatics education.

Duncan V, Holtslander L. Utilizing grounded theory to explore the information-seeking behavior of senior nursing students. *J Med Libr Assoc*. 2012 Jan;100(1):20–7. doi: 10.3163/1536-5050.100.1.005. PMID: 22272155.

Background: The ability to find and retrieve information efficiently is an important skill for undergraduate nursing students. Yet a number of studies reveal that nursing students are not confident in their library searching skills and encounter barriers to retrieving relevant information for assignments. **Objectives:** This grounded theory study examined strategies used by students to locate information for class assignments and identified barriers to their success. **Methods:** Purposive sampling was used to recruit eleven students, who were asked to record their searching

processes while completing a class assignment, and semi-structured, open-ended, audiotaped interviews took place to discuss the students' journals and solicit additional data. Methods of information seeking, strategies used to find information, and barriers to searching were identified. **Results:** Students' main concern was frustration caused by the challenge of choosing appropriate words or phrases to query databases. The central theme that united all categories and explained most of the variation among the data was “discovering vocabulary.” **Conclusions:** Teaching strategies to identify possible words and phrases to use when querying information sources should be emphasized more in the information literacy training of undergraduate nursing students.

Featherstone RM, Boldt RG, Torabi N, Konrad SL. Provision of pandemic disease information by health sciences librarians: a multisite comparative case series. *J Med Libr Assoc*. 2012 Apr; 100(2):104–12. doi: 10.3163/1536-5050.100.2.008. PMID: 22514506.

Objective: The research provides an understanding of pandemic information needs and informs professional development initiatives for librarians in disaster medicine. **Methods:** Utilizing a multisite, comparative case series design, the researchers conducted semi-structured interviews and examined supplementary materials in the form of organizational documents, correspondence, and websites to create a complete picture of each case. The rigor of the case series was ensured through data and investigator triangulation. Interview transcripts were coded using NVivo to identify common themes and points of comparison. **Results:** Comparison of the four cases revealed a distinct difference between “client-initiated” and “librarian-initiated” provision of pandemic information. Librarian-initiated projects utilized social software to “push” information, whereas client-initiated projects operated within patron-determined parameters to deliver information. Health care administrators were identified as a key audience for pandemic information, and news agencies were utilized as essential information sources. Librarians' skills at evaluating available information proved crucial for selecting best-quality evidence to support administrative decision making. **Conclusions:** Qualitative analysis resulted in increased understanding of pandemic information needs and identified best practices for disseminating information during periods of

high organizational stress caused by an influx of new cases of an unknown infectious disease.

Garcia-Milian R, Norton HF, Tennant MR. The presence of academic health sciences libraries on Facebook: the relationship between content and library popularity. *Med Ref Serv Q*. 2012 Apr; 31(2):171–87. doi: 10.1080/02763869.2012.670588. PMID: 22559180.

Social networks such as Facebook allow libraries to be proactive in reaching their users. While some libraries have popular Facebook pages, it remains unclear what attracts users to these pages. This study evaluates relationships between libraries' Facebook page content and popularity. An analysis of 72 academic health sciences libraries' Facebook pages showed positive correlations between number of library fans and number of tabs, photos, events, and wall posts on Facebook. Libraries posting videos had significantly more fans than libraries without them. This study contributes to an understanding of correlations between content and popularity on Facebook, with implications for library outreach.

Lasserre K. Expert Searching in Health Librarianship: a Literature Review to Identify International Issues and Australian Concerns. *Health Info Libr J*. 2012 Mar;29(1): 3–15. doi: 10.1111/j.1471-1842.2011.00974.x. PMID: 22335285.

Background: The traditional role of health librarians as expert searchers is under challenge. **Objectives:** The purpose of this review is to establish health librarians' views, practices and educational processes on expert searching. **Methods:** The search strategy was developed in LISTA and then customised for ten other databases: ALISA, PubMed, Embase, Scopus, Web of Science, CINAHL, ERIC, PsycINFO, Cochrane Library and Google Scholar. The search terms were (expert search* OR expert retriev* OR mediated search* OR information retriev*) AND librar*. The searches, completed in December 2010 and repeated in May 2011, were limited to English language publications from 2000 to 2011 (unless seminal works). **Results:** Expert searching remains a key role for health librarians, especially for those supporting systematic reviews or employed as clinical librarians answering clinical questions. **Conclusions:** Although clients tend to be satisfied with searches carried out for them, improvements are required to effectively position the profession. Evidence-based guidelines, adherence to transparent standards, review of entry-level education requirements and a commitment to accredited, rigorous, ongoing professional development will ensure best practice.

McGowan J, Hogg W, Zhong J, Zhao X. A cost-consequences analysis of a primary care librarian question and answering service. *PLoS One*. 2012;7(3):e33837. Epub 2012 Mar 19. doi: 10.1371/journal.pone.0033837. PMID: 22442727.

Background: Cost consequences analysis was completed from randomized controlled trial (RCT) data for the Just-in-time (JIT) librarian consultation service in primary care that ran from October 2005 to April 2006. The service was

aimed at providing answers to clinical questions arising during the clinical encounter while the patient waits. Cost saving and cost avoidance were also analyzed. The data comes from eighty-eight primary care providers in the Ottawa area working in Family Health Networks (FHNs) and Family Health Groups (FHGs). **Methods:** We conducted a cost consequences analysis based on data from the JIT project. We also estimated the potential economic benefit of JIT librarian consultation service to the health care system. **Results:** The results show that the cost per question for the JIT service was \$38.20. The cost could be as low as \$5.70 per question for a regular service. Nationally, if this service was implemented and if family physicians saw additional patients when the JIT service saved them time, up to 61,100 extra patients could be seen annually. A conservative estimate of the cost savings and cost avoidance per question for JIT was \$11.55. **Conclusions:** The cost per question, if the librarian service was used at full capacity, is quite low. Financial savings to the health care system might exceed the cost of the service. Saving physician's time during their day could potentially lead to better access to family physicians by patients. Implementing a librarian consultation service can happen quickly as the time required to train professional librarians to do this service is short.

Wolf MS, Curtis LM, Wilson EA, Revelle W, Waite KR, Smith SG, Weintraub S, Borosh B, Rapp DN, Park DC, Deary IC, Baker DW. Literacy, cognitive function, and health: Results of the LitCog Study. *J Gen Intern Med*. 2012 May 8. [Epub ahead of print]. doi: 10.1007/s11606-012-2079-4. PMID: 22566171.

Background: Emerging evidence suggests the relationship between health literacy and health outcomes could be explained by cognitive abilities. **Objective:** To investigate to what degree cognitive skills explain associations between health literacy, performance on common health tasks, and functional health status. **Design:** Two face-to-face, structured interviews spaced a week apart with three health literacy assessments and a comprehensive cognitive battery measuring 'fluid' abilities necessary to learn and apply new information, and 'crystallized' abilities such as background knowledge. **Setting:** An academic general internal medicine practice and three federally qualified health centers in Chicago, Illinois. **Patients:** Eight hundred and eighty-two English-speaking adults ages 55 to 74. **Measurements:** Health literacy was measured using the Rapid Estimate of Adult Literacy in Medicine (REALM), Test of Functional Health Literacy in Adults (TOFHLA), and Newest Vital Sign (NVS). Performance on common health tasks were globally assessed and categorized as 1) comprehending print information, 2) recalling spoken information, 3) recalling multimedia information, 4) dosing and organizing medication, and 5) healthcare problem-solving. **Results:** Health literacy measures were strongly correlated with fluid and crystallized cognitive abilities (range: $r = 0.57$ to 0.77 , all $p < 0.001$). Lower health literacy and weaker fluid and crystallized abilities were associated with poorer performance on healthcare tasks. In multivariable analyses, the association between health literacy and task performance was substantially reduced once fluid and

crystallized cognitive abilities were entered into models (without cognitive abilities: $\beta = -28.9$, 95% Confidence Interval (CI) -31.4 to -26.4 , p ; with cognitive abilities: $\beta = -8.5$, 95% CI -10.9 to -6.0). **Limitations:** Cross-sectional analyses, English-speaking, older adults only. **Conclusions:** The most common measures used in health

literacy studies are detecting individual differences in cognitive abilities, which may predict one's capacity to engage in self-care and achieve desirable health outcomes. Future interventions should respond to all of the cognitive demands patients face in managing health, beyond reading and numeracy.