COLUMN / CHRONIQUE

Current research

Compiled by Sophie Regalado

Raynor M. Access all areas: exploring the use of library and IT facilities by University of Salford pre-registration diploma nurses during periods of clinical practice placement. *Evid Based Libr Inf Pract*. 2009;4(3):4–18. Available from: http://ejournals.library.ualberta.ca/index.php/EBLIP/article/view/4456/5527.

Objective: To assess the scale of library and IT resource access issues reported anecdotally by nursing students on clinical placement. To map patterns of IT and library usage behaviour to inform future service plans for this population of students. **Methods:** A multi-response self-completion questionnaire administered on a group basis to 78 pre-registration Diploma Nursing students. **Results:** The survey group were heavy users of library and IT facilities while on placement (87% of respondents accessed library and IT facilities at least once per week). Survey respondents encountered barriers to accessing these resources, including lack of awareness of local facilities, lack of time to access facilities, supervisors' attitudes towards use of library and IT facilities by placement students, and feeling inadequately prepared for accessing and using resources at a distance from the university. Respondents relied heavily on facilities in the placement location and university facilities and responses suggest that use by location was strongly linked to resource format. Use of public library facilities to support study while on placement was revealed by the survey. Respondents' main source of help for library and IT issues was clinical mentors. The survey indicated that the experience of library and IT access varied greatly with location of placement venue. The study was limited in eliciting more detail about location-specific experiences and findings need to be explored further with respondents using focus group methodology. **Conclusions:** Library and IT access problems encountered by the pre-registration nursing students included in this survey were not large scale. Although there is no evidence of behaviour to circumvent systemic problems, the study identified small but significant barriers. Five recommendations addressing these barriers will require collaborative service planning between University of Salford and National Health Service (NHS) learning resource staff to implement. This collaboration needs to include service users and the practice mentors who support them on clinical placement.

Fourie I. Learning from research on the information behaviour of healthcare professionals: a review of the literature 2004–2008 with a focus on emotion. *Health Info Libr J.* 2009 Sep;26(3):171–86. PMID 19712210.

Objective: A review, focusing on emotion, was conducted of reported studies on the information behaviour of healthcare professionals (2004–2008). Findings were intended to offer guidelines on information services and information literacy training, to note gaps in research and to raise research interest. **Method:** Databases were searched for literature published from January 2004 to December 2008 and indexed oneric, Library and Information Science Abstracts, MEDLINE, PsycINFO, Social Services Abstracts, Sociological Abstracts, Health Source: Nursing/Academic Edition; Library, Information Science & Technology Abstracts; Psychology and Behavioral Sciences Collection; Social Work Abstracts; SocINDEX with Full Text; SPORTDiscus; cinhal; and the ISI Web of Knowledge databases. Key journals were manually scanned and citations followed. Literature was included if reporting on issues concerning emotion. **Results:** Emotion in information behaviour in healthcare contexts is scantily addressed. This review, however, offers some insight into the difficulty in identifying and expressing information needs; sense making and the need to fill knowledge gaps; uncertainty; personality and coping skills; motivation to seeking information; emotional experiences during information seeking; self-confidence and attitude; emotional factors in the selection of information channels; and seeking information for psychological or emotional reasons. **Conclusion:** Suggestions following findings, address information literacy programs, information services and research gaps.

Bak G, Mierzwinski-Urban M, Fitzsimmons H, Morrison A, Maden-Jenkins M. A pragmatic critical appraisal instrument for search filters: introducing the CADTH CAI. *Health Info Libr J.* 2009 Sep;26(3):211–9. PMID 19712213.

Objective: To identify or develop a critical appraisal instrument (CAI) to aid in the selection of search filters for use in systematic review searching. The CAI is to be used by experienced searchers without specialized training in statistics or search filter design. **Methods:** Through extensive searching and consultation, one candidate instrument was identified. Through expert consultation and several rounds of testing, the instrument was extensively revised to become the Canadian Agency for Drugs and Technologies in Health (CADTH) CAI. **Results:** The CADTH CAI consists of ten questions and can be applied by experienced searchers with a moderate knowledge of search filter methodology. **Conclusion:** The CADTH CAI provides experienced searchers with a means of selecting the search filter that is most methodologically sound.

Barrett P. An online nursing leadership literature centre at the University of Manitoba Health Sciences Libraries. *Health Info Libr J*. 2009 Sep;26(3):232–9. PMID 19712215.

Background: Decades of hospital restructuring in Canada resulted in significant reductions of nursing leadership positions and altered a nursing infrastructure important for guiding patient care. The importance of acquiring nursing leadership skills to address the negative effects of restructuring is advocated by Canadian nursing bodies. **Objectives:** To describe a service innovation for a nursing community. The librarians of the University of Manitoba Health Sciences Libraries (UMHSL) created an online nursing leadership literature centre to support a leadership programme launched by the Nursing Leadership Council (NLC) of the Winnipeg Regional Health Authority. The article will contribute to the body of literature about health library services for nurses. **Methods:** The creation of the service is described. A literature search was undertaken to determine what services have been implemented by librarians for nursing leadership programmes, as well as to review the literature with regard to contributions made by librarians for nursing communities. **Results:** The literature service, comprised of 19 webliographies based on the NLC's leadership topics, is available on the UMHSL website. A webliography, by definition, is a list of electronic works relating to a particular topic. The NLC created its own website that provides nurses with a means to identify, enhance and evaluate leadership competencies, and which is linked to the UMHSL website. **Conclusion:** The contributions of the UMHSL librarians to this project support the goals of instilling leadership skills in nurses, encouraging evidence-based nursing practice, and transforming a practice environment to meet the ultimate goal of effective patient care.

McKibbon KA, Wilczynski NL, Haynes RB. Retrieving randomized controlled trials from medline: a comparison of 38 published search filters. *Health Info Libr J*. 2009 Sep;26(3):187–202. PMID 19712211.

Background: People search medline for trials of healthcare interventions for clinical decisions, or to produce systematic reviews, practice guidelines, or technology assessments. Finding all relevant randomized controlled trials (RCTs) with little extraneous material is challenging. **Objective:** To provide comparative data on the operating characteristics of search filters designed to retrieve RCTs from medline. **Methods:** We identified 38 filters. The testing database comprises handsearching data from 161 clinical journals indexed in medline. Sensitivity, specificity and precision were calculated. **Results:** The number of terms and operating characteristics varied considerably. Comparing the retrieval against the single term "randomized controlled trials.pt." (sensitivity for retrieving RCTs, 93.7%), 24 of 38 filters had statistically higher sensitivity; 6 had a sensitivity of at least 99.0%. Four other filters had specificities (non retrieval of non-RCTs) that were statistically not different or better than the single term (97.6%). Precision was poor: only two filters had precision (proportion of retrieved articles that were RCTs) statistically similar to that of the single term (56.4%) — all others were lower. Filters with more search

terms often had lower specificity, especially at high sensitivities. **Conclusion:** Many RCT filters exist ($n = 38$). These comparative data can direct the choice of an RCT filter.

Wilczynski NL, Haynes RB. Consistency and accuracy of indexing systematic review articles and meta-analyses in medline. *Health Info Libr J*. 2009 Sep;26(3):203–10. PMID 19712212.

Background: Systematic review articles support the advance of science and translation of research evidence into healthcare practice. Inaccurate retrieval from medline could limit access to reviews. **Objective:** To determine the quality of indexing systematic reviews and meta-analyses in medline. **Methods:** The Clinical Hedges Database, containing the results of a hand search of 161 journals, was used to test medline indexing terms for their ability to retrieve systematic reviews that met predefined methodologic criteria (labelled as "pass" review articles) and reviews that reported a meta-analysis. **Results:** The Clinical Hedges Database contained 49 028 articles; 753 were "pass" review articles (552 with a meta-analysis). In total 758 review articles (independent of whether they passed) reported a meta-analysis. The search strategy that retrieved the highest number of "pass" systematic reviews achieved a sensitivity of 97.1%. The publication type "meta analysis" had a false positive rate of 5.6% (95% CI 3.9 to 7.6), and false negative rate of 0.31% (95% CI 0.26 to 0.36) for retrieving systematic reviews that reported a meta-analysis. **Conclusions:** Inaccuracies in indexing systematic reviews and meta-analyses in medline can be partly overcome by a 5-term search strategy. Introducing a publication type for systematic reviews of the literature could improve retrieval performance.

Robb BG, Zipperer L. Knowledge management in hospitals: drawing from experience to define the librarian's role. *J Hosp Librarian*. 2009 Jul–Sep;9(3):307–17.

The future of hospital librarians is measured by how successful they are in adapting to new demands and in seeing innovative opportunities that have impact in the acute care setting. The authors share their experiences working with information professionals from corporate and hospital environments to envision how the concepts of knowledge management and transfer — as applied in the corporate environment — could be applied in a hospital/health system. The workshop session used the process of Appreciative Inquiry to facilitate a positive conversation. Participants shared their experiences in knowledge transfer activities — both traditional and expansive in nature. Together they build a list of skill sets that librarians already embody to help organizations support their knowledge transfer efforts that may have not been recognized by leadership or the librarians themselves. The participants' positive experiences illustrated how these skills might enhance knowledge-sharing activities in hospitals. The group discussed how an expanded, proactive knowledge role could be implemented by hospital librarians. They drafted descriptions of Plan-Do-Study-Act projects to test the potential outcomes of this expanded application. The authors hypothesize that an explicit role for hospital librarians in sustaining successful knowledge transfer will contribute to organizational learning about error and quality

improvement. The work begun by this group aimed to launch future discussions and studies on the role of librarians in knowledge management activities in hospitals.

Kloda LA, Bartlett JC. Clinical information behavior of rehabilitation therapists: a review of the research on occupational therapists, physical therapists, and speech-language pathologists. *J Med Libr Assoc*. 2009 Jul;97(3):194–202. Available from: http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubmedid=19626145.

Objectives: The review sought to synthesize existing research relevant to rehabilitation therapists' clinical information behavior and to identify gaps in evidence, particularly in comparison to what is already known about the information behavior of other health professionals, such as physicians. **Methods:** A literature review was conducted of both quantitative and qualitative research studies that included information on the clinical information behavior of occupational therapists, physical therapists, and speech-language pathologists. Findings were organized according to a taxonomy of variables derived from the literature. **Results:** Findings from seventeen studies, mostly surveys, conducted since 1990 demonstrate that very little is known about the clinical information needs of and information use by rehabilitation therapists. The sources most often consulted by rehabilitation therapists are printed materials (books and journals) and colleagues. Databases are consulted less often, and few rehabilitation therapists are aware of databases other than MEDLINE. **Discussion:** Methodological flaws limit the generalizability and validity of much of the research conducted on the clinical information behavior of this population. More research is needed to better understand the clinical questions that arise in rehabilitation therapists' practice, reasons for consulting certain sources, and ways in which information seeking enhances evidence-based practice.

Hoogendam A, de Vries Robbé PF, Stalenhoef AFH, Overbeke AJPM. Evaluation of PubMed filters used for evidence-based searching: validation using relative recall. *J Med Libr Assoc*. 2009 Jul;97(3):186–93. Available from: http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2706446.

Objectives: The research sought to determine the value of PubMed filters and combinations of filters in literature selected for systematic reviews on therapy-related clinical questions. **Methods:** References to 35 281 included and 48 514 excluded articles were extracted from 2629 reviews published prior to January 2008 in the Cochrane Database of Systematic Reviews and sent to PubMed with and without filters. Sensitivity, specificity, and precision were calculated from the percentages of unfiltered and filtered references retrieved for each review and averaged over all reviews. **Results:** Sensitivity of the Sensitive Clinical Queries filter was reasonable (92.7%, 92.1–93.3); specificity (16.1%, 15.1–17.1) and precision were low (49.5%, 48.5–50.5). The Specific Clinical Queries and the Single Term Medline Specific filters performed comparably (sensitivity, 78.2%, 77.2–79.2 vs. 78.0%; 77.0–79.0; specificity, 52.0%,

50.8–53.2 vs. 52.3%, 51.1–53.5; precision, 60.4%, 59.4–61.4 vs. 60.6%, 59.6–61.6). Combining the Abridged Index Medicus (AIM) and Single Term Medline Specific (65.2%, 63.8–66.6), Two Terms Medline Optimized (64.2%, 62.8–65.6), or Specific Clinical Queries filters (65.0%, 63.6–66.4) yielded the highest precision. **Conclusions:** Sensitive and Specific Clinical Queries filters used to answer questions about therapy will result in a list of clinical trials but cannot be expected to identify only methodologically sound trials. The Specific Clinical Queries filters are not suitable for questions regarding therapy that cannot be answered with randomized controlled trials. Combining AIM with specific PubMed filters yields the highest precision in the Cochrane dataset.

Whipple EC, McGowan JJ, Dixon BE, Zafar A. The selection of high-impact health informatics literature: a comparison of results between the content expert and the expert searcher. *J Med Libr Assoc*. 2009 Jul;97(3):212–8. Available from: http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2706443.

Background: The Agency for Healthcare Research and Quality (AHRQ) National Resource Center for Health Information Technology (NRC) created the Health IT Bibliography that contains peer-reviewed articles in eleven different health informatics categories. To create the bibliography, informatics experts identified what they considered the seminal articles in each category. **Methods:** Using the same eleven categories, an expert searcher (librarian) compiled a list of the "best" health informatics articles using information seeking and retrieval tools. The two sets of articles were then compared using high citation counts as a measure of value. **Results:** The expert searcher set (8230) contained more than 3 times the citations to chosen articles compared to the content expert set (2382). Of 60 articles, 27% of those articles (*n* = 516) were included in both sets. The frequently cited journals were similar for both sets, and one-third of the same authors were cited in both sets. **Discussion:** While citation counts and the timeliness of the articles differed in the two sets, the same authors and same journals were frequently present in both sets. **Conclusion:** A best practice for locating high-quality articles may be collaboration between expert searchers and content experts.