The *CINAHL*® Database: Meeting the Changing Needs for Patient Care Information

As the Demand for Information Access Evolves, so do EBSCO Publishing's Nursing Resources

June Levy, MLS
Managing Director
CINAHL Information Systems, a division of EBSCO
Publishing
jlevy@ebscohost.com

Parker Livermore
Senior Director
Worldwide Medical Sales, EBSCO Publishing
plivermore@ebscohost.com

Gareth Smith
Director of Sales – UK & Ireland
EBSCO Publishing
garethsmith@ebscohost.com

The World Wide Web has changed how people seek and access information. Nowhere is this more keenly felt than with medical information. Long the gold standard for information for nursing and allied health professionals, CINAHL® is using a combination of technology and content to raise the bar even higher.

Evolution of the Database – Enhanced Versions of CINAHL
The CINAHL® database has evolved from a print index to a sophisticated reference tool, and as such provides numerous health care professionals with access to their specialized

information needs. In addition to nursing literature, the database also indexes literature pertaining to the seventeen allied health disciplines, biomedicine, complementary medicine, consumer health, and health information science. While these additional disciplines have historically been underserved by other citation indexing products, they are well-covered by the CINAHL databases.

From its beginning as an indexing and abstracting resource for the nursing field of study, CINAHL has always focused on helping users find information, and as such, has become the industry standard. Since its acquisition in 2003 by EBSCO Publishing (EBSCO), a worldwide leader in research databases, the CINAHL database has experienced accelerated development and growth, thereby increasing its value to applicable researchers. For example, EBSCO has introduced enhanced versions of the CINAHL database with full-text coverage, new features, and additional content. Expanded indexing on CINAHL® Plus and CINAHL® Plus with Full Text includes journal coverage back as far as 1937 with over 1.5 million records. CINAHL® Plus with Full Text builds on the expanded indexing of CINAHL Plus by adding full-text coverage of more than 500 titles indexed in the databases.

Pre-CINAHL – Expediting Access to Current Data
When subscribed to through EBSCOhost®, CINAHL users also gain access to the Pre-CINAHL companion database. This resource provides current awareness of new journal articles, and includes a rotating file of limited bibliographic information.

The included articles are available to searchers only for the time while they are being assigned additional indexing and subject headings. This enables users to gain access to article citations that otherwise would not be available. Once the bibliographic records are complete, they are added to the CINAHL database and removed from Pre-CINAHL.

Benefits of Access via the EBSCOhost Platform

The enhanced versions of the CINAHL database are only available on the EBSCOhost interface. The trade journal Library Journal has called the EBSCOhost interface one of the best interfaces available, "because it is so simple yet so powerful" (LaGuardia 2005). In fact, any subscription to the original CINAHL database ordered after the end of calendar year 2007 will only be made available on the EBSCOhost platform. This will prove to be a huge benefit to end users as the interface continues to be enhanced specifically to support the CINAHL databases. Some of these features include: an improved subject authority (thesaurus) screen, a streamlined Search History layout in the Advanced Search screen, an Export delivery option, dynamically expanding Find Field for the Advanced Guided Style Search Screen for longer searches, and an Ask-a-Librarian link.

Since EBSCO acquired the CINAHL database, the company has worked diligently to expand backfiles for CINAHL's citation indexing. All subscribers to the CINAHL databases (via the EBSCOhost platform) now have access to this valuable information.

Through the EBSCOhost platform, the CINAHL databases provide author-supplied abstracts to help users determine whether the material retrieved covers their topic of interest. Author abstracts are included for over 1,500 journal titles giving users unique insight into the article from the original author.

Searchable Cited References

Because EBSCO Publishing has access to such a large body of published information, the CINAHL databases (via EBSCOhost) can enhance the search experience of researchers by allowing them to track specific subjects through citation references. EBSCOhost offers reference searching for more than 1,170 indexed titles in CINAHL and more than 1,200 in CINAHL Plus. The link "cited references" allows the user to display the list of articles cited by the author (the bibliography). From this list the user can link out to the cited articles if they are available. The list also indicates how many times each cited reference has been cited in the database. To view the bibliography of the cited reference the user tags the reference and then clicks on the "Related Records" button. The "times-cited" link retrieves a list of articles in the database that cite the original article. This type of reference searching provides a powerful tool for users to locate additional information related to an article of interest. It also allows authors to learn what impact their published articles have had in terms of how often and where they have been cited. Searchable cited references also help users to track the development of knowledge over the years.

Primary and Secondary Sources

Bibliographic databases are excellent resources for retrieving primary and secondary sources to support evidence-based practice. Primary sources include qualitative and quantitative studies while secondary sources include summaries of evidence (systematic reviews, meta-analyses, etc.), interpretation, or clinical application research papers and non-research papers (standards, practice guidelines, case studies, etc.). Publication types such as research, systematic review, standards, practice guidelines, etc. allow the user to extract primary or secondary sources from the literature indexed in the CINAHL and CINAHL Plus databases.

Non-Journal Content

Besides journal articles, other material indexed includes books and book chapters, audiovisuals, software, dissertations, conference proceedings, systematic reviews and clinical trials. The CINAHL databases include non-journal material in full text such as newsletters, state nursing publications, practice acts, standards of practice, patient education material, research instruments, critical paths and government publications.

Specialized Thesaurus

Given the many advances in medicine and the rapid pace technology has set for the industry, the available body of nursing and allied health literature is continually monitored for new terminology not already included in the CINAHL Subject Heading List (thesaurus). The thesaurus is updated annually to include these new terms. The controlled vocabulary has grown

to over 12,000 terms – 5,046 of which are unique to CINAHL. The key is to make searching CINAHL as easy as possible and to allow users to find information quickly. To that end, indexing imposes a consistency that tends to improve search results. One way a user can utilize the thesaurus is by limiting their search by using the 75 subheadings available in the database.

Users also have the option to search using the CINAHL controlled vocabulary ("suggest subject terms") in the EBSCOhost interface. For example, searching for the topic nursing attitudes in this way retrieves various suggestions for terms: nurse attitudes, midwife attitudes, employee attitudes, attitude of health personnel, etc. The scope or definition of the term can then be displayed. The user can make the search more specific by restricting the focus (major concept) and by selecting one or more appropriate subheadings. The option to make the search broader is also provided – by selecting the option to "explode". The interface also provides the option of combining subject headings so that users are able to retrieve the most specific information relating to their patient care question or topic.

Additional Content

The databases include indexing of the systematic reviews of the Cochrane Database of Systematic Reviews and Health Technology Assessment. Also, the Specific Interest Category, Evidence-Based Practice, (used as a limit under "Refine Search" in EBSCOhost) in the CINAHL databases allows the user to retrieve literature about evidence-based practice and

relevant primary and secondary sources. These journal articles are selected for this category by CINAHL indexers even though they may originate from journals and periodicals that are outside the Nursing and allied health fields.

Links to External Resources

Although the Internet is not typically regarded as the best source of evidence, there are certainly sites that have proven to be of value to researchers. Users can search for Web sites of interest in the CINAHL Plus database. The database records include a description of the Web site, the professional audience it is intended for, whether there is original content available, navigation features, if there are any CE credits, contact information and any special features.

Available Tutorials and Support Materials

EBSCO Publishing has created tutorials to help users understand the best way to find information in the CINAHL databases. The EBSCO Publishing support site has direct links to the CINAHL tutorials at: http://support.ebsco.com/training/. Users can obtain an online walk-through for both basic and advanced searching in the CINAHL databases. These tutorials are useful tools for users who are new to the EBSCOhost interface and for experienced users who want to maximize their search results.

The Future – Point-of-Care Information for Nurses

In an effort to further keep pace with the ever-changing needs of practicing nurses and other health care providers, EBSCO

will soon make available the Nursing Reference Center (NRC), the first truly point-of-care tool for nurses. The Nursing Reference Center will provide an array of vital non-journal content and will also allow for integrated searching of a user's CINAHL database subscription, thereby serving as the ultimate point-of-care resource for practicing nurses. The company expects to release Nursing Reference Center in September 2007.

Examples of New Proprietary Point-of-Care Materials in NRC

As the information needs of health care professionals continue to evolve, the need for synthesized information about specific topics as well as access to a resource that allows for more in-depth research has become paramount. For this reason, new proprietary point-of-care materials such as Quick Lessons and Evidence-Based Care Sheets have been developed. While a small number of these documents have been made available in the CINAHL Plus and the CINAHL Plus with Full Text databases, a more expanded selection of them will be offered through the new Nursing Reference Center. The Quick Lessons and Evidence-Based Care Sheets provide information for caregivers regarding particular diseases and/or specific aspects of their care. After a comprehensive literature search and review of the retrieved material, the documents are written and reviewed by health care professionals. They are intended to provide quick and easy access to information needed at the bedside. The expanded availability of these materials in the

Nursing Reference Center will make them easier to access and therefore, more effective for practicing health care providers.

Quick Lessons provide overviews of diseases, syndromes and conditions. These two-page electronic documents each include a description, etiology, sign and symptoms, clinical assessment, laboratory tests, treatment goals, food for thought, red flags and what to tell patients.

The Evidence-Based Care Sheets are also a convenient one-to-two pages in length, and incorporate the latest evidence, statistics, research, and references to provide concise and comprehensive evidence-based overviews of clinical issues. The references are ranked according to the type of literature they represent (e.g., systematic reviews and meta-analysis).

Continuing Education Credits
EBSCO can also help nurses meet their Continuing Education requirements. Continuing education (CE) modules are provided for some of the Quick Lessons and Evidence-Based Care Sheets. These interactive modules allow nurses to fulfil CE requirements online. They contain the latest topics on patient care and drug administration, such as the effect of education on melanoma, postpartum depression, senior patient management in asthma, and more. Each module consists of course material, an interactive review, and a competency test with a certificate of completion. Accreditation is provided through the Board of Registered Nurses, California and the IACET (International Association for Continuing Education and Training). When there

is a CE module available, a link is provided in the CE module field. By clicking on this link the user is taken to the CINAHL Education Web site where instructions are available.

Integration with Electronic Health Records (EHR)

In order to provide nurses and other healthcare providers with rapid access to the latest research, EBSCO's point-of-care information can also be integrated into an institution's Electronic Health Records (EHR). This allows healthcare providers to link directly to treatment options via ICD-10 codes and a variety of hyperlinks based on medications, conditions, and procedure. EBSCO Publishing's point-of-care clinical reference tool DynaMed™ (www.ebscohost.com/dynamed) is also available for EHR integration. DynaMed was recently selected by the National Health Service of England to enhance the point-of-care options in all English hospitals. The integration of all of EBSCO's valuable point-of-care content into EHR systems enhances any patient record and allows doctors and nurses to treat patients based on the best available evidence.

Conclusion

The CINAHL databases continue to set the standard for information retrieval for nurses and allied health professionals. Evolving technology continues to push the database forward, but no matter which direction technology goes; the dedication of CINAHL indexers and the focus of the database provider remains intact. CINAHL was designed to bring information about nursing and allied health to the user who can make a difference for patients. New technology and developments in e-

resources have made it easier to expand the scope of CINAHL by linking directly to full-text articles and making searches easier through controlled vocabulary and searchable cited references. The move to the EBSCOhost interface creates a consistent look for the database, and ongoing interface enhancements will continue to assist users. The company's dedication to Evidence-Based medicine, as seen in the literature surveillance standards set by its point-of-care clinical reference tool DynaMed, further demonstrates how EBSCO is poised to meet the changing demands of medical searching by adapting to and making full use of evolving technological standards. This is further evident in the company's upcoming Nursing Reference Center product, which, upon its release, will take residence as the quintessential tool for practicing nurses.

References

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