Evidence-Based Practice Goes Beyond Google

Sandra Klitzing

School of Kinesiology and Recreation

Illinois State University

Abstract

Evidence-based practice (EBP) is applying research to assist in the selection of interventions that result in increased client quality care. Recently the Commission on Accreditation of Allied Health Education Programs (2010), a new accreditation body for recreational therapy education, included standards that state students should obtain knowledge of EBP. Research has shown undergraduate students rely on Google as their primary source of information or research tool. This paper will describe an EBP assignment that includes a context-specific scaffold designed to assist students locate quality sources for the project.

Introduction

Evidence–based practice (EBP) is a concept that has its origins in evidence-based medicine, which was conceptualized to encourage the medical profession to examine effectiveness of treatments and to guide decisions about the best care of patients (Scott & McSherry, 2008). Since the 1990s, EBP has been adopted by many allied health professions including nursing, social work, physical therapy, occupational therapy, and recreational therapy/therapeutic recreation (Adams, LeCroy, & Matto, 2009; Austin, 2009; Estabrooks, 1998; Reagon, Bellin, & Boniface, 2008; Slavin, 2004; Stumbo & Peterson, 2009). Stumbo and Peterson (2009) said, "Evidence-based practice is the process of applying the results of outcome research to improve the day-to-day therapeutic recreation service to clients" (p. 229). The outcome of EBP for recreation therapists, therefore, is therapeutic recreation practice that is based on research and results in increased quality of client care.

Please address all correspondence to: Sandra Klitzing, Ph.D., CTRS, Illinois State University, School of Kinesiology and Recreation, Campus Box 5120, Normal, IL 61790, (309) 438-8396, slklitz@ilstu.edu

Austin (2009) wrote, "EBP demands that university professional preparation programs prepare emerging professionals with the latest clinical research information" (p. 181). The American Therapeutic Recreation Association's (2008) *Guidelines for Competency Assessment and Curriculum Planning for Recreational Therapy Practice* cited EBP as one of the types of knowledge and skills that should be taught in university undergraduate curricula. Recently the Commission on Accreditation of Allied Health Education Programs (2010), a new accreditation body for recreational therapy education, included standards that state students should obtain knowledge about EBP. Thus, the inclusion of EBP in universities' curricula is no longer merely a suggestion but an accreditation requirement.

Numerous therapeutic recreation textbooks introduce EBP (e.g., Austin, 2009; Stumbo & Peterson, 2009; West, 2009). This introduction typically includes history, purpose, steps to connect research to practice, and ways to evaluate strength of evidence. EBP is a complex and difficult task that has at its core the ability to locate, understand, and evaluate salient research from the literature. Adams et al. (2009) wrote, "The skilled and thoughtful critical review required [for EBP] is beyond the capabilities and interests of most practitioners" (p. 176). Estabrooks (1998) examined how nursing practitioners utilized research in practice and found practitioners used articles published in discipline trade magazines slightly more than information from popular magazines or the Internet to guide practice. Research journals were rarely consulted. Other researchers analyzed how students searched for scholarly information. These researchers identified Google was the students' primary source of information (Buhi, Daley, Fuhrmann, & Smith, 2009; Griffiths & Brophy, 2005; Zhang, Y. 2008). Griffiths and Brophy (2005) discovered undergraduate students' use of academic resources was low; students thought Google was easy, quick, and provided "good enough" information; and often students did not know what else to use to conduct a search.

How do educators begin to teach EBP to undergraduate therapeutic recreation students who may use Google uncritically to find articles they think represent best practices? One way to do so is to create a scaffold. The concept of instructional scaffolding was first described in 1976 (Wood, Bruner, & Ross). Originally scaffolding was conceived as an instructor providing assistance (or a scaffold) to help a student solve a problem the student could not solve alone. At that time, scaffolding was basically one-to-one tutoring. Since its inception, scaffolding has changed to include other forms of support, such as software or tools designed to help entire classes versus individual students (Puntambekar & Hubscher, 2005). Scaffolding is used at all levels of education, from grade school (Belland, 2010) to college (Wang & Hannafin, 2008). A good scaffold provides support so students can function independently and ultimately complete projects that would be impossible or difficult without assistance (Puntambekar & Hubscher, 2005). For example, McNeill and Krajcik (2009) found context-specific scaffolds assisted students in writing scientific arguments. Elements of scaffolding include ongoing assessment of students' current skills, tailored assistance, and students' internalization of how to complete a specific task and to generalize the process to similar tasks (Puntambekar & Hubscher, 2005). This paper will describe an EBP assignment that includes a context-specific scaffold designed to assist students locate quality sources for the project.

Description of Learning Activity

Illinois State University's therapeutic recreation curriculum includes a service delivery course that teaches design of intervention programs, including EBP. Students are introduced to the concept of EBP through textbook readings and lectures. The process of searching databases and evaluating research is discussed. Additionally, students are shown The Cochrane Library, an online library, where research evidence that could be used to inform health care decisions is located. As a learning measure, students are required to write a six to eight page EBP paper. Students are informed of the assignment at the beginning of the semester. The paper is due approximately one month after the classroom discussions.

Specific information is required for the EBP paper. Students must identify a population (e.g., adults with alcohol addiction, teens with autism, seniors with dementia, etc.) and thoroughly describe the disabilities or conditions that might exist in this population, as well as the effects of these disabilities or conditions. Students also describe an agency where therapeutic recreation services would be provided for the population. Following the description of population and agency, students review the professional literature to identify five articles that describe programs/interventions utilized with the population. Students write a summary of each program/intervention identified, including settings, outcomes, similarity to their population and agency, and strength of the research findings. Finally, students select one program/intervention they would choose to implement and explain the rationale for their choice. This assignment provides students with practice making the connection between research outcomes and intervention selection.

In order to assist the students with this complex task, the instructor met with a subject librarian over the summer to discuss the EBP project and sources needed for the project. The librarian created a descriptive, interactive, course resource website that would serve as a context-specific scaffold to help students search for appropriate sources. It includes indexes (e.g., SPORTDiscus, CINAHL), key journals (e.g., *Therapeutic Recreation Journal, Annual in Therapeutic Recreation, American Journal of Recreation Therapy*), other suggested journals (e.g., *International Journal of Rehabilitation Resources, Journal of Leisure Research*), and disability sources (e.g., *Gale Encyclopedia of Genetic Disorders, Recreational Therapy Handbook of Practice*) with explanations about the sources, links to the sources or online articles when available electronically, and call numbers and library locations when not available electronically (see Figure 1 for sample content). This website is introduced and explained by the librarian during a class period. The librarian is also available to meet personally with the students outside of class, as well as through email, text, or scheduled online chat times, in order to assist with locating sources or using the website. Supplying this information and access to the librarian provides a scaffold, so students will not rely on less accurate information that might be obtained easily via Google to complete the EBP assignment.

Outcomes of the Learning Activity

There are several outcomes from this EBP assignment which was supported by a context-specific scaffold. The EBP assignment requires students to identify appropri-

Suggested Article Indexes

SPORTDiscus: Before you start searching, look near the bottom of the screen and notice that you can limit to a specific Database Subset. Try limiting to *Recreation and Leisure*. You may also want to limit the Language to *English*. Then try typing in the disability you have chosen. Don't type in too many terms! You may also need to try alternative terms or broader "umbrella" terms. You will probably pull up citations for book chapters, dissertations, and trade journals. For some assignments, you may want to limit to *peer reviewed*.

CINAHL: You will probably want to click on "keyword" in the upper left hand corner before starting your search. CINAHL covers Nursing and Allied Health. One relevant subject heading is *Recreational Therapy.*

Key Journals

Therapeutic Recreation Journal: The most current source of indexing is SPORTDiscus. You can add another term to this search, but you will probably be able to identify relevant articles just by examining the article titles. Some, although not all, of the issues from 1998 to the present are available online. However, these articles are in an HTML format. They do not include any graphics or tables, and the volume, issue, and page information required for APA citations are not included.

Annual in Therapeutic Recreation: Published by the American Therapeutic Recreation Association. The most comprehensive indexing is in the CINAHL database.

Other Suggested Journals

International Journal of Rehabilitation Research (full text)

Journal of Leisure Research (full text)

Describing the Disability Suggested Sources

Gale Encyclopedia of Genetic Disorders: Most entries include a description of the disorder, a genetic profile, demographics, signs and symptoms, diagnosis, treatment and management, and prognosis

Recreation Therapy Handbook of Practice: This is an outstanding source. Section Two provides descriptions of a variety of conditions, and entries generally include information about the prevalence in the U.S., predominate age, causes, assessments, and recreational therapy interventions.

Naylor, 2010

Figure 1. Sample Information Provided on Course Website

ate research to guide intervention selection. Studies show when faced with finding information, today's college students rely on Google because it is quick, and they may not know how to use academic indexes or search engines. Teaching library skills and database utilization is often beyond the scope and time limits of a content course. Thus, a course website that is quick, accessible at all hours of the day (or night), easy to navigate, and linked directly to appropriate sources provided a scaffold, so students could complete the assignment successfully. Through utilization of the website, students learned where and how to identify appropriate sources for EBP. Prior to the utilization of the scaffold, students struggled with the project and often used inappropriate sources for their information. After the completion of the scaffold, student work improved as did their knowledge of professional sources. Completing the EBP assignment increased the students' knowledge of different populations and disabilities, as well as interventions that are effective for these populations. Students learned to select an intervention with the best potential to increase quality of client care from alternatives. This skill is a competency that therapeutic recreation's professional organization has identified as needed for practice and that new accreditation standards will require of undergraduate recreational therapy education.

Recommendations for Using Learning Activity

The EBP assignment is designed for use in a therapeutic recreation service delivery course with senior level undergraduate students. The instructor must work closely with a subject librarian to make sure the library has appropriate and current sources and that these sources are included in an easy to use, interactive, course resource website. Having a website that merely lists sources without directions, links, and other information may not be the best scaffold for an EBP project. Instructors must access their students' library and database utilization skills to determine if a scaffold similar to the one described in this paper is needed. The librarian will need sufficient time to complete the website. The librarian and instructor should evaluate if or how the website should be changed each semester after it is used.

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