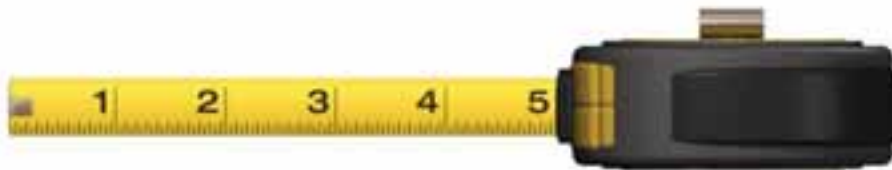


Using Findings From Qualitative Studies as Evidence To Inform Practice: An Update

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Integrating research evidence, practitioner expertise, and client perspectives in the clinical decision-making process.

Along with the social sciences, education, and some of the other health professions, occupational therapy has a long tradition of using findings from qualitative studies and ethnographies to develop its knowledge base. Over the past 20 years or so, qualitative research designs, procedures, and methods have entered the methodological mainstream in medicine as well.

Current debates focus less on the legitimacy of qualitative research than on the yardsticks for judging qualitative research designs and methodological procedures, and the best way to produce credible findings and conclusions from qualitative data. It is no longer a question of whether qualitative designs and methods are scientific and valuable; instead, the issue is to understand how methodological rigor and credibility can be defined, enhanced, and ensured.

As the shift toward acceptance of qualitative research as part of the biomedical research toolkit was taking place, the evidence-based practice (EBP) movement in medicine and health care was gaining momentum in Great Britain, Canada, Australia, and the United States. In EBP, clinical expertise, client preferences, and evidence from the scientific literature are used to inform practice decisions. Evidence—findings from the literature in peer-reviewed publications—is found using standardized procedures to critically appraise selected studies that use experimental research designs.

Qualitative study designs are rooted in the naturalistic research paradigm,

where the researchers' subjectivity is valued as an essential component of the investigation. Because this approach was traditionally viewed as interpretive bias, qualitative research designs were not included as a level of evidence to be used in EBP—that is, until the past 15 years, when several groups of social scientists and health professionals, including occupational therapists, began to grapple with defining the issues of rigor and credibility in qualitative research, and using findings from a group of qualitative studies as part of evidence-based systematic reviews. These efforts have paved the way to being able to count the findings from qualitative studies as another kind of evidence to inform practice.

THE CRITICAL APPRAISAL OF QUALITATIVE STUDIES

Along with other health educators and professionals, such as nurses, many occupational therapists are comfortable reading articles that use qualitative research methods. Clinical training leads occupational therapists to be familiar with the nature of the data that are collected, which includes observations, participant observations, interviews, focus groups, reviews of written documents, and audio or audiovisual materials.

Also, the purpose of qualitative research “to study things in their natural setting, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them” and to use “a holistic perspective which preserves the complexities of human behavior” (p. 22),¹ connects well with the clinical aims of occupa-

tional therapy. Although the characteristics of qualitative research match the therapeutic intentions of all of the health professions, there is a special resonance with the holistic perspectives and practice disciplines of both occupational therapy and nursing. It is no coincidence that occupational therapists and nurses in the U.S., Canada, Australia, and the U.K. have taken the lead in developing methods and instruments for the critical appraisal of qualitative studies, the first step toward being able to count findings from qualitative studies as evidence to inform practice.

Mary Law, PhD, OT Reg (Ont.), FCAOT; Lori Letts, PhD, OT Reg (Ont.); and colleagues from the School of Rehabilitation Science at McMaster University in Ontario, Canada, began working on the issue of using qualitative studies as evidence during the mid-1980s. They recognized that some rehabilitation scientists and practitioners, including occupational therapists, are not deeply familiar with the nature of qualitative data, research designs, or methods for data analysis unless they've developed expertise in conducting research. In addition, many readers of qualitative studies find it difficult to tell whether an article meets the conditions for a high-quality study—that is, are the research design and analytic methods used “good enough” for the interpretive findings to be trusted and used to inform practice decisions?

To address these common responses to reading qualitative studies, the McMaster University EBP Working Group turned to the critical appraisal

concepts developed by qualitative methodologists to articulate the dimensions and technical procedures used in trustworthy qualitative research.²⁻⁴ These methodologists suggested that the adequacy of descriptive clarity (study design, theoretical perspective, data collection procedures, study population) and auditability (analytic trail, data triangulation, multiple coding, participant validation/member check) could be used to evaluate the rigor of a study and ensure confidence in the trustworthiness of its findings (e.g., its credibility, transferability, dependability, and confirmability). Methodologists continue to develop and gain consensus about a set of qualitative study limitations, flaws, or inadequacies so that credible or credible-enough studies can be conducted, published, and identified and used by practitioners in their clinical decision-making process.

Meanwhile, the McMaster Working Group used the best available criteria at the time and published version 1.0 of a critical review form to appraise qualitative studies, in the first edition of Mary Law's 2002 book *Evidence-Based Rehabilitation: A Guide to Practice*.⁵ Responding to student and peer review of the version 1.0 forms, Lori Letts, Seane Wilkins, and McMaster University colleagues took the lead in developing version 2.0 of the form⁶ and a new set of critical appraisal guidelines,⁷ and published the second edition of the book, co-authored by Law and her physical therapy colleague, Joy MacDermid.⁸ These forms and guidelines are currently in use by students, researchers, and practitioners around the globe. They are used to encourage the development of EBP in occupational therapy (and other health professions) and represent the state-of-the-art in terms of evaluating whether a qualitative study is "good enough" for consideration in making practice decisions. However, as Letts commented, "while progress has been made, assessing credibility in qualitative research is still in its state of infancy," and there is a need for continued experimentation and evaluation of critical appraisal tools.

Because a consensus has not been reached by experts about the appropriate criteria for trustworthiness in



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qualitative studies, journal editors and review boards have not yet set standards for publication, nor considered the possibility that page length requirements may need to be expanded. As a result, qualitative articles often do not provide enough descriptive information to assess clarity or enough auditability information to critically appraise their adequacy. It is reasonable to expect that these barriers to critical appraisal will be overcome as methodologists achieve more of a consensus about criteria, and EBP researchers and practitioners advocate for standardizing qualitative studies so they can be appraised in light of any study limitations, and then considered as another form of research evidence to inform practice decisions.

SYNTHESIZING FINDINGS FROM QUALITATIVE STUDIES FOR SYSTEMATIC REVIEWS

Starting in the early 1990s, and continuing to the present, several groups of qualitative methodologists, primarily in the social sciences and nursing, began to contend with the challenge of developing procedures for aggregating or pooling findings from groups of qualitative studies to produce systematic reviews of the qualitative evidence to contribute to the development of EBP.⁹⁻¹¹ Generally known as "qualitative meta-synthesis," the goal of these efforts is to produce an evidence report or a section in a systematic review of studies using experimental research designs. *Systematic review*, as defined from an EBP perspective, refers to a literature review that (a) is developed around a focused clinical question with specific inclusion and exclusion

requirements for articles under consideration; (b) uses standardized criteria to select the most rigorous and relevant group of articles for critical appraisal; (c) presents the findings of the articles in relation to any major study limitations; and (d) synthesizes the findings of the studies as a group, in a balanced and impartial way.

One of the most promising efforts in the development of procedures for both critical appraisal and meta-synthesis procedures is the recent work of Alan Pearson, PhD, RN, and colleagues at the Joanna Briggs Institute in Adelaide, South Australia, and several universities and health sciences centers in Australia.^{9,12} Pearson and colleagues, and a group of international peer reviewers, have developed a Qualitative Assessment and Review Instrument (JBI-QARI; available at www.joannabriggs.edu.au) and a QARI software package to guide reviewers through the process of critically appraising and extracting study findings from individual articles, then synthesizing findings from a group of articles.¹³ The instrument, guidelines, and software package are currently used in training workshops in Australia and the U.K., and have resulted in many systematic reviews available on the Web site. Pearson and colleagues look forward to continued use and experimentation by teams of researchers, clinicians, and students.

The JBI-QARI developers define a finding for the purpose of qualitative meta-synthesis as "a conclusion reached after the examination of the results of data analysis (e.g., themes, metaphors), consisting of a statement that relates two or more phenomena,

variables, or circumstances that may inform practice” (p. 36).¹³ The review authors develop findings from the results of data analysis found in a group of articles. An example published in the JBI-QARI section of the *User Guide* describes how most of the studies selected for a review of phenomenological studies about the experiences of mid-life adults living with chronic illnesses reported a theme of separateness. “The finding here,” according to the *User Guide*, “is not the theme ‘separateness,’ but a statement such as ‘Some people living with a chronic illness feel that their illness separates them from the community’” (p. 36).¹³

Margarete Sandelowski, PhD, RN; Julie Barroso, PhD, ANP; and colleagues from the University of North Carolina at Chapel Hill have developed a new scholarship related to considering and reconsidering the variety of approaches in qualitative meta-syntheses.^{14–16} One of the approaches, known as *meta-ethnography*, evaluates the findings from each study selected as an “informant” or a “case.” A recent publication using this approach provided a thought-provoking synthesis of findings from six articles whose authors had developed typologies of client responses to diabetes.¹⁷ The meta-ethnography identified six key concepts as being important in enabling persons with diabetes to achieve balance in their lives and to attain a sense of well-being and control: (1) time and experience, (2) trust in self, (3) acknowledgment that diabetes is a serious illness, (4) less subservient approach to health care providers, (5) strategic noncompliance with medications, and (6) effective support from care providers. These concepts merit careful attention by occupational therapy practitioners and others who care for adults with chronic illnesses and disabilities.

At the 2006 World Federation of Occupational Therapists conference in Australia, Beatriz (Betty) Abreu, PhD, OTR, FAOTA, a clinical professor at the University of Texas Medical Branch—School of Allied Health Sciences in Galveston, presented the results of a pilot study using the meta-summary methods developed by Sandelowski and colleagues¹¹ to aggregate findings from 31 articles about the lived experi-

Criteria for Trustworthiness in Qualitative Studies

Credibility	<p>Are descriptions and interpretations of the participants’ experiences credible?</p> <p>Credibility is supported in the following ways:</p> <ul style="list-style-type: none"> ■ The data were collected over a prolonged period. ■ A team of investigators collected and analyzed the data, vs. a solo investigator. ■ A variety of methods were used to gather data. ■ There was systematic reflection about preconceptions or values.
Transferability	<p>Can the findings be applied to your client(s) and their context(s)?</p> <p>Transferability is supported if the study is credible and the participants and the setting are described in enough detail to allow for comparison to a specific client, or group of clients.</p>
Dependability	<p>Is there consistency between the data and the findings?</p> <p>Dependability is supported if there is a clear explanation of the research process, including data collection methods and analytic decisions.</p>
Confirmability	<p>Were strategies used to limit the influence of preconceptions or values among researcher(s) throughout the research process (i.e., study design, instrument development, data collection, data analysis)?</p> <p>Confirmability is supported when:</p> <ul style="list-style-type: none"> ■ There was systematic reflection about preconceptions or values. ■ A team of investigators collected and analyzed the data, vs. a solo investigator. ■ There was external peer review throughout the research process.

Adapted from *Guidelines for Critical Review Form: Qualitative Studies (Version 2.0)*⁷

ences of persons with acquired brain injury after stroke or head trauma, both during and after a period of rehabilitation, and the implications of their findings for practice.¹⁸ Abreu, a career specialist in traumatic brain injury (TBI) research and practice, said she “greatly valued what I learned from participating in the synthesis group and its contributions to the field,” specifically the following implications for practice: (a) experiences of loss are ongoing; occupational therapy students and practitioners would benefit from increased knowledge and experience with the bereavement process in practice settings, and its specific use in working with persons with TBI and their families; and (b) struggles with identity are ongoing and can be a source of both stress and personal growth. The components of positive psychology (e.g., resilience and adaptation) can be fostered in all therapeutic interactions.

It is noteworthy that in 2003, Jennie Popay, PhD, professor of sociology

and public health at the Institute for Health Research at the University of Lancaster in the U.K., and more than 30 international colleagues, submitted a proposal to the Cochrane Collaboration to establish a Cochrane Qualitative Research Methods Group (CQRMG). The purpose of the group is to develop methods to appraise and then include evidence from qualitative studies into systematic reviews and to train reviewers in qualitative meta-synthesis. Although the CQRMG does not yet have its own core funding, the Joanna Briggs Institute hosts its Web site (www.joannabriggs.edu/au/cqrmg/index.htm).

Margo Holm, PhD, OTR/L, FAOTA, in her 2000 Eleanor Clarke Slagle Lecture “Our Mandate for the New Millennium: Evidence-Based Practice,”¹⁹ challenged the audience to seriously consider “how do you know that what you do and how you do it really works?” (p. 575)—a first question to ask when developing an evidence-based practice. Now, 8 years later, we can participate

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in an international effort to develop methods and procedures to critically appraise individual qualitative studies and to synthesize findings from a systematic review of qualitative studies focused around a clinical intervention topic or question. And we are well on our way to being able to authoritatively inform our practices with evidence from systematic reviews that include findings from qualitative studies that address the value of occupational therapy interventions. ■

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