

# Qualitative research is evidence, too

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With the current emphasis on accountability for outcomes and the need for objective evaluation of efficacy of interventions, physiotherapists are increasingly using evidence from research as a source of information to support clinical decision making. The concept of evidence-based practice has been adopted widely in physiotherapy with much work devoted to encouraging the transfer of research results into clinical practice. Under the definition developed by Sackett et al (2000) – a group of clinical epidemiologists – evidence-based practice requires the integration of three components: patient values, clinical expertise, and best evidence from research. Best evidence from research is defined as ‘clinically relevant research... [about the] accuracy and precision of diagnostic tests, the power of prognostic markers, and the efficacy and safety of therapeutic, rehabilitative, and preventive regimens.’

Increased focus on using evidence from research as a source of information for clinical practice has led to the development of hierarchies for evaluating research rigour (Guyatt and Rennie 2002, Higgins and Green 2005, Butler et al 1999). Evidence hierarchies are most often based on criteria for rigour developed for quantitative research designs. Design is ranked according to the extent that the study is internally valid or free from sources of bias, with large randomised controlled trials providing the highest level of evidence and physiologic studies and unsystematic clinical observations providing weaker evidence.

Qualitative research is excluded from most prominent hierarchies because qualitative and quantitative research have different underlying philosophies, methods, and criteria for judging quality. However, it should not be inferred from this exclusion that rigorous qualitative research is a less valuable form of evidence or that research employing qualitative methods cannot be used to inform clinical practice. In fact, the Cochrane Qualitative Research Methods Group is exploring whether and how studies using qualitative methods can be included in systematic reviews. As clinicians, we know that implementation of interventions in real-world situations requires knowledge about patients’ values and experiences, contextual variables that influence how interventions are delivered, and the difficult-to-quantify human aspects of clinical practice – what Guyatt et al (2000) refer to as the broad perspective offered by the humanities and social sciences. Since selection of research methods should be based on their ‘best fit’ with the research questions, qualitative methods (used alone or in a mixed-method design) provide a systematic approach to producing knowledge about the behaviours, values, and experiences of patients, their families, and clinicians.

Qualitative research can provide clinically-relevant information about patient values and experiences. In the reality of clinical practice, knowing why patients choose not to participate in an intervention is as important as knowing about its efficacy. Efficacious interventions will have limited therapeutic value if patients cannot or

do not follow recommendations. It is likely that myriad factors, including some that may not be readily apparent, contribute to patients’ decisions about whether to adhere to recommendations. Qualitative methods offer the possibility to explore human experiences in unique sociocultural contexts from the perspective of the participants, offering insights into patients’ values and experiences.

Qualitative research methods were used in a study aimed at reduction of disparity between the effectiveness (ie, the ability to produce an effect under real-world conditions) and efficacy (ie, the ability to produce an effect under ideal conditions) of interventions for childhood asthma. Hyland and Stahl (2004) collected quantitative and qualitative data to explore the unmet needs of parents of children with asthma to ascertain how their perceptions of management compared with those of service providers. Data from focus groups with parents indicated that they were concerned about the use of steroids, specifically the possibility of addiction and growth inhibition, and therefore they were not giving the medications as advised. This information has clear implications for education about asthma management, and could be used to stimulate discussion among parents of children with asthma and health care service providers about the risks of poorly-controlled asthma and the potential for adverse effects of medications. A similar approach could be used to explore the perceptions and experiences of patients and their families about physiotherapy interventions.

The emphasis on objective measurement of outcomes in physiotherapy has led to the proliferation of outcome measures. Qualitative research can be used to determine which outcomes and how much change in those outcomes are significant to patients. Are the changes we consider ‘clinically significant’ meaningful to patients and families? Are the outcome measures used to evaluate ‘subjective’ phenomena such as quality of life capturing the essence of what those concepts mean to our patients? In a recent study, Young et al (2007) used qualitative methods to explore the meaning of quality of life in children with cerebral palsy. Their data were compared against the concepts represented in the KIDSCREEN, a standardised screening instrument for children’s quality of life. The children discussed concepts that were included in the KIDSCREEN (social relationships, self and body, and recreational activities and resources). However, there were a number of concepts that were not represented in KIDSCREEN (such as relationships with family members other than parents, inclusion and fairness, home life and neighbourhood, pain and discomfort, environmental accommodation of needs, and recreational resources other than finances and time). This research is an excellent example of how an inductive approach can provide an insider perspective on the issues that are important to patients and families. This insight, whether gained from systematic qualitative inquiry or through discussions with individual patients and families, is central to patient- and family-centred practice.

Qualitative research can be used to explore clinical decision making processes. Although the effects of therapists' values and beliefs on clinical decision making are often not explicit, they can have a significant impact on approaches to intervention. Daykin and Richardson (2004) explored the 'pain beliefs' of six physiotherapists working with patients with chronic low back pain to determine how these beliefs affected their approaches to intervention. The behaviour of the therapists demonstrated that their understanding of back pain was framed within a biomedical context and that generally they did not give equal consideration to psychosocial aspects of pain when choosing interventions. Since research into chronic low back pain supports a biopsychosocial approach to intervention, this research highlights the usefulness of qualitative research in making explicit some of the implicit assumptions of clinical practice. Therapists need to be aware of their own values and beliefs about illness and disability because these may shape their perceptions of viable intervention options. More research in this area, particular with a focus on therapists' conceptualisation of disability and quality of life, could provide valuable information about the influence of values and beliefs on clinical decision making.

The diversity of clinical questions in physiotherapy practice demands a broad array of research methods. While many clinically-relevant questions in physiotherapy are best answered using quantitative approaches, other questions are answered effectively with qualitative research or mixed-method designs. We have provided some examples of the potential contribution that qualitative methods can make to clinical practice. In a discussion of evidence-based practice in rehabilitation, Cicerone (2005) notes that evidence-based practice is supported by the integration of best evidence and clinical judgement, including knowledge of the subjective factors influencing therapists' decision making, and the meaning of illness, disability, and rehabilitation to our patients. Qualitative research is becoming more widely accepted in rehabilitation and rigorous studies can contribute to the growing knowledge base of our profession. Tools for evaluating the rigor of qualitative research already exist (Greenhalgh and Taylor 1997, Law 2002) but, to encourage the use of evidence from qualitative research in clinical practice, therapists and researchers need to agree how qualitative research can contribute to our knowledge base. Broadening our definition of evidence, so that all rigorous forms of systematic inquiry are included, would result in a better reflection of the diversity of clinical issues in physiotherapy practice.

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## Correction to Volume 53 No 3

The citation details in the abstract of the paper by Djavid and colleagues should read:

**[Djavid GE, Mehrdad R, Ghasemi M, Hasan-Zadeh H, Sotoodeh-Manesh A, Pouryaghoub G (2007) In chronic low back pain, low level laser therapy combined with exercise is more beneficial than exercise alone in the long-term: a randomised trial. *Australian Journal of Physiotherapy* 53: 155–160]**

AJP apologises for the error.