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Uncertainty and information need in nursing

Beverley French *

Department of Nursing, University of Central Lancashire, Greenbank 211, Preston, Lancashire PR1 2HE, United Kingdom

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Summary The assumption of practitioner uncertainty as a cause of practice variation has focussed attention on the information behaviour of health care professionals, but there is very little research into clinical groups other than doctors.

This study considered the information needs of nurses and their attributions for uncertainty. The method was participant observation of three groups of nurse specialists from multiple health care providers who met over time to construct evidence-based consensus recommendations for practice.

Practitioners were uncertain about the best course of action in half of the issues discussed. There were clearly expressed areas of information need, but the workgroup process uncovered more implicit uncertainty than was expressed. The recognition of problems in practice was central to the articulation of information need, rather than the existence of new solutions. Of the known areas of uncertainty, only those that were problematic and had a visible, practical solution were followed up. Factors contributing to uncertainty included a perception of lack of evidence, and differences in how problems were presented in practice and research.

The occurrence of unrecognised uncertainty suggests that there are areas of clinical practice where helping to recognise and articulate information need may stimulate further interest in evidence-based practice.

Background

The assumption underlying evidence-based practice is that health care treatment based on the best available research evidence will result in reduced variation and improved patient outcomes (Haynes, 2002). The popular explanation for why variation occurs centres mainly on practitioner uncertainty, with resulting inconsistency in clinical decision-making. The NHS Information strategy aims to reduce uncertainty by increasing the availability of rigorously produced health care information (NHS Executive, 1998), but theories of information behaviour point to the importance of user need in predicting uptake (Fisher et al., 2005). It is therefore important to understand how health care

* Tel.: +44 1772 893642; fax: +44 1772 892998.
E-mail address: bfrench1@uclan.ac.uk.

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professionals perceive and manage uncertainty, including how and why uncertainty is translated into information need.

Booth and Walto (2000) summarise the research evidence for patterns of uncertainty and expressed information need in health care. The overall picture is one of high levels of uncertainty with low levels of expressed information need and follow-up into information seeking. However, most of what is known about information need in health care has been constructed from studies with medical professionals. For example, the information needs of general practitioners have been studied fairly intensively, including the types of questions arising (Smith, 1996; Ely et al., 2000), how many questions turned into information seeking behaviour Ely et al. (1992), the factors that influenced information seeking (Gorman and Hefland, 1995; Ely et al., 2002) and whether the questions were answerable Gorman et al. (1994).

There has been less exploration of uncertainty and information need in nursing. A recent large study of nursing used observation of clinical practice, interviews, documentary audit and Q sort to investigate information behaviour in nursing, including the kinds of decisions that nurses make during routine clinical care. The majority of decisions made in the acute setting related to treatment effectiveness, or the process of delivering care. Decision making was a social activity, with advice sought from others in the care team for most aspects of uncertainty (McCaughan, 2002). Blythe and Royle (1993) observed 32 nurses on a general medical unit to identify their information needs and use of information resources. Almost all routine information need related to the immediate care needs of patients, and was fulfilled by access to patient records or consulting other health care personnel. In an exploratory study, Rasch and Cogdill (1999) found that the information needs of nurse practitioners most often related to drug therapy, diagnosis and other therapy. Other studies consider nurses' information needs, but in the context of library use (Wakeham, 1996; Urquhart and Davies, 1997).

The studies that have been done in nursing are based on nurses' expressed information needs within daily care giving, and focus on routine information need. However, information need is more likely to occur in situations that require significant departures from previous action or understanding, such as reviews of care for groups of patients with a similar condition. There are no studies that consider how nurses construct information needs from clinical practice, and the factors influencing the expression of information need. This study considers how nurses themselves perceive, explain and act on uncertainty in clinical practice.

Method

The study used a constructionist, ethnomethodological approach to consider nurses' practical social reasoning (Garfinkel, 2002). Ethnomethodological studies analyse what people do in everyday life in order to learn about the underlying patterns, rules, and procedures (ten Have, 2004). This was part of a larger study investigating *how* nurses construct recommendations for clinical practice from research evidence (French, 2001). This part of the study focussed on the expression of uncertainty and information need. The specific objectives were to identify:

- areas of uncertainty and expressed information need;
- practitioners attributions for uncertainty;
- triggers and obstacles to the expression of information need.

The method was participant observation of a series of meetings (a clinical workgroup) of nurse specialists from up to 35 health care provider units (NHS Trusts) in the north west of England. The local University convened the workgroups as part of a quality initiative to harmonise education and practice. Three workgroups were chosen to study different task types and settings:

1) *Intravenous infusion management* (IV). A technical task mainly carried out in acute care, e.g., surgery
2) *Long term urinary catheter management* (C). This task is a mix of technical and social intervention and occurs in both acute and community care.
3) *Paediatric asthma self care management* (A). Predominantly a social intervention based in the community, but including some hospital visits.

Thirty-one separate clinical issues were discussed across the three workgroups (C = 13, A = 8, IV = 8). Table 1 illustrates the kind of issues discussed in each of the workgroups.

No details are given of individual respondents as in ethnomethodology, individuals are only dealt with as members of cohorts (Rawls, cited in Garfinkel, 2002). Table 2 gives an overview of the