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EVIDENCE BASED HEALTH CARE: THE ROLE OF THE LIBRARIAN

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(This paper is based in part on a seminar presented by Anna Donald, Senior House Officer in Public Health Medicine, John Radcliffe Hospital, Oxford, to the Health Libraries Information Network, Anglia and Oxford Region)

The spiralling cost of health care provision is presenting an increasing problem for health care practitioners. Medical technology is advancing rapidly, and the mass communication of this knowledge through television and other media has heightened public expectations of medicine. Demographic factors such as increased life expectancy and greater capacity for survival contribute to the problem.

The amount of money and other resources invested in health care research has never been greater. However, there is evidence that this research is not being used in practice, resulting in a lack of cost-effectiveness and efficient care, which is to the detriment of both the patient and the tax-payer. One of the main reasons for this is the sheer volume of information available: how can health care practitioners distil this mass into a usable nucleus of information which can then be used as a practical tool?

Evidence based health care, which will here be defined as *the application of research evidence to decision making about health care*, is one potential solution to these problems.

Decisions made by managers and clinicians in the NHS often have far reaching effects on clinical practice and cost to tax payers. Many factors influence these decisions, including:

top down priorities – e.g. government policy or procedures laid down by individual NHS Trusts or other health care providers

professional advice – e.g. from producers of pharmaceutical products or medical equipment

consumer involvement – e.g. level of demand for a particular treatment or level of relevant knowledge amongst consumers

EVIDENCE

In order to make effective decisions, health care practitioners need to base them on evidence. This can be found through personal experience or professional discourse with colleagues; but the most comprehensive source of evidence is published material in the form of books and journal articles.

An evidence based approach to health care involves three stages:

1. *FIND* the evidence. This involves searching the literature for relevant information.
2. *APPRAISE* the evidence. What are the results? How valid, and how relevant, are they?
3. *ACT*. Valid and relevant evidence should be used in practice.

OBSTACLES TO IMPLEMENTING EVIDENCE BASED HEALTH CARE

1. *Finding evidence*
 - People don't know how to start looking for evidence
 - There is too much, or too little, evidence available.
2. *Appraising evidence*
 - People don't know which questions to ask about it
 - They may feel they lack training
3. *Acting on evidence*
 - Because people have difficulty in finding and appraising evidence, its practical application is slow, as shown in the following example:

Does thrombolytic treatment work?

Year	No. of trials	No. of people in trials	Result
1960	1	23	Yes
1965	3	149	Yes
1970	7	1793	Yes
1975	15	3311	Yes
1980	23	6125	Yes
1985	33	6571	Yes
1990	70	48154	Yes

(Antman, 1992)

However, in spite of this overwhelming evidence, the Oxford Textbook of Medicine (1987) states:

"The clinical value of thrombolysis ... remains uncertain."

THE ROLE OF THE LIBRARIAN

The librarian has a crucial role in implementing evidence based health care in the following ways:

- librarians can *search* for evidence. They are in the best position to know where evidence can be found and how to extract it from these sources.
- librarians can *network* people and information. There are several examples of librarians, particularly those working in Health Authority libraries, who are cooperating with health care professionals to set up computerised databases of useful contacts and banks of expertise. Health care practitioners are often unaware of sources such as the Cochrane Centre Database on pregnancy and childbirth: librarians are important in promoting the use of these resources.
- librarians are *gatekeepers* of the knowledge base of health care, in that they decide what to purchase and make available; what to keep and how to store it.
- librarians have a role in *appraising* the evidence. Practitioners do not want to receive a literature search which consists of the sum total of knowledge on a subject; it is far better to receive a small selection of good quality review or research articles. Librarians have the skills to distil the information to this point.
- the most important role of the librarian is to *enable* health care practitioners to carry out the functions listed above. They should be actively involved in the CASP (critical appraisal skills for purchasers) workshops which are being organised around the country, and in courses promoting research awareness and evaluation.

In Anglia and Oxford Region Dr Judy Palmer, Director of the Health Libraries Information Network, has secured funding for the "Library of the 21st Century Project", which aims to develop ways to enhance these critical skills in librarians. It is based on work which is already being carried out at McMaster University, Canada, a leader in the field of evidence based health care.

The development of evidence based health care is the most exciting concept to emerge in medical and nursing librarianship for many years. It presents an opportunity for librarians to be much more actively involved in patient care, and to truly become a part of the health care delivery team. It is important that as a profession we make every effort to acquire the necessary skills to meet these challenges.

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