Seeing the fetus on the ultrasound screen has become a socially accepted aspect of pregnancy for many women

"I haven't had any midwives coming round and saying 'Oh, this woman has asked me a lot about safety of ultrasound, can you come and help me?' I haven't had anyone come round at all, which is very surprising after the issues we raised. In fact I think it raised more anxiety in me than it appeared to have done with the women."

The ultrasonographers were generally reluctant to raise the subject of the leaflet with women directly:

"If they didn't bring it up, I assumed they didn't really want to talk about it."

"It just raises their anxiety levels if you start talking about it before they do—their anxiety levels go sky high."

Issues in implementing evidence informed choice

This case study highlights several key issues about implementing evidence informed choice for users of health services. These are the resistance of some health professionals to evidence based health care; professional ownership of knowledge; conflicts with professional autonomy; concern that informed choice may create anxiety; and professional and organisational barriers to allowing informed choice.

As other research has shown,¹² the social organisation of hospital work may militate against the introduction of policies that seem to call for a restructuring of health professionals' time. The call for more choice for users has not been accompanied by corresponding investment in training professionals how to promote informed choice and in organising the healthcare process to make time for and provide facilities for promoting more active participation by health service users. The same difficulties were not found in our pilot study of the leaflets discussing position in labour,¹⁰ suggesting that implementing evidence about effective health care and promoting evidence informed choice for users may be different for different interventions and may be seen as more appropriate in some healthcare disciplines than in others.

The ability to implement research that may challenge the value of a health technology may also depend on the age of the technology.¹³ Evaluating well established technologies may be particularly problematic. In addition, informed decision making may be frustrated by fast developing technologies that outpace evaluative research. The use of routine ultrasonography in pregnancy is also influenced by the technique's social role, which may prompt users to choose to have it for reasons other than established effectiveness. Whereas some women are critical of routine ultrasonography,¹⁴ for many it is socially desirable to view the fetus on the screen and receive reassurances that the baby is all right.^{15 16}

Much of the information produced for users of health services describes healthcare processes without providing information about options and outcomes.¹⁷ A recent survey of information materials for patients found that few outlined treatment options and even fewer were evidence based.¹⁸

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- 1 Shackley P, Ryan M. What is the role of the consumer in health care? *Journal of Social Policy* 1994;23:517-41.
- 2 Department of Health. *The patient's charter*. London: HMSO, 1991.
- 3 Department of Health. *Changing childbirth*. London: HMSO, 1993.
- 4 Alderson P, ed. *Consent to health treatment and research: differing perspectives*. London: Social Science Research Unit, 1992. (SSRU consent conference series No 1.)
- 5 Hughes TE, Larson LN. Patient involvement in health care: a procedural justice viewpoint. *Med Care* 1991 29:297-303.
- 6 Rosenberg W, Donald A. Evidence based medicine: an approach to clinical decision making. *BMJ* 1995;310:1122-6.
- 7 Chalmers I, Dickersin K, Chalmers TC. Getting to grips with Archie Cochrane's agenda. *BMJ* 1992;305:786-7.
- 8 *The Cochrane pregnancy and childbirth database*. London: BMJ Publishing Group, 1995.
- 9 Enkin M, Keirse MJMC, Renfrew M, Neilson J. *Imaging ultrasound in pregnancy. Guide to effective care in pregnancy and childbirth*. 2nd ed. Oxford: Oxford University Press, 1995:40-5.
- 10 Oliver S, Rajan L, Turner H, Oakley A. *A pilot study of two "Informed Choice" leaflets on positions in labour and routine ultrasound*. York: Social Science Research Unit and NHS Centre for Reviews and Dissemination, 1996. (CRD Report 7.)
- 11 College of Radiographers. *Code of professional conduct*. London: College of Radiographers, 1994.
- 12 Meredith P. Patient participation in decision making and consent to treatment: the case of general surgery. *Sociology of Health and Illness* 1993;15:315-36.
- 13 McKinlay JB. From "promising report" to "standard procedure": seven stages in the career of a medical innovation. *Milbank Q* 1981;59:374-411.
- 14 Beech BL, Robinson J. Antenatal ultrasound risks—growing consumer concern. *Association for Improvements in the Maternity Services Journal* 1993;5:9-10.
- 15 Berwick DM, Weinstein MC. What do patients value? Willingness to pay for ultrasound in normal pregnancy. *Med Care* 1985;23:881-93.
- 16 Neilson JP. High vs low feedback to mother at fetal ultrasound. In: Enkin MW, Keirse MJMC, Renfrew MJ, Neilson JP, eds. *Pregnancy and childbirth module of the Cochrane database of systematic reviews, 1995 (updated 24 February 1995)*. London: BMJ Publishing Group.
- 17 Royal College of Obstetricians and Gynaecologists. *Information pamphlet series*. London: RCOG, 1994.
- 18 Hyatt J. *In it together: promoting information for shared decision making*. London: King's Fund Centre, 1994.

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Commentary: Evidence based information for women is important

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The "Informed Choice" leaflets produced by the Midwives' Information and Resource Service and the NHS Centre for Reviews and Dissemination are of fundamental importance. They set out to provide users of the health service—in this case pregnant women—with the best evidence available on the effectiveness of different aspects of maternity care, in an accessible format and language. Significantly, the leaflets encourage

women to ask questions about what procedures are for and why they are needed.

The case study by S Oliver and colleagues is important because it examines how the leaflet on ultrasound screening was received and responded to by women, ultrasonographers, and midwives. We need to know how research evidence is greeted and how it is used, blocked, ignored, denied, and forgotten. It is not

enough to review and summarise the available research: the challenge is to get it used in practice as the basis for clinical guidelines and as information to users.

The case study shows that different stakeholders react differently. There was resistance from ultrasonographers, who raised a number of difficulties, including questioning the credibility of the evidence presented. They also expressed concern about increasing women's anxiety, reducing the uptake of ultrasound scans and perpetuating negative attitudes. The leaflets were welcomed by midwives and access to the information seems to have been appreciated by the 26 women who took part in the pilot study. Interestingly for all concerned, the uptake of ultrasound scanning was maintained in this small group, despite worrying evidence that 1 in 200 abortions are carried out on fetuses with no major abnormality.

Research evidence shows that the information provided about antenatal screening tests is limited¹ and that women want more detailed and reliable information on these procedures so that they can make an informed decision about whether they will be carried out.² In a study in north Essex a representative sample of 800 women was asked to list the reasons given to them for having a scan. Only 60% selected "to look for abnormalities/problems" from a multiple choice list, and it is a recurring theme that some women are upset to discover for the first time when they receive results that their scan had been carried out for this reason.³

Research on women's views of the usefulness of different kinds of information in pregnancy suggests that the leaflets produced by the Midwives' Information and Resource Service are valued because they are

generally seen as being unbiased and reliable.⁴ However, the leaflets for women do not explain the methods used, and some of the participants in focus group discussions wanted to know the basis for the conclusions drawn.⁴ They had some understanding of research and sampling issues and were interested to see, for example, the list of references on the paired leaflet prepared for health professionals.

Our concern is that providing pregnant women with information on evidence based outcomes is not being considered a priority by purchasers or providers. Fifteen of the 21 maternity units surveyed in the West Midlands region had decided not to buy the "Informed Choice" leaflets of the Midwives' Information and Resource Service, and none reported money available from the purchaser for this purpose.⁵ Furthermore, at the "But will it work, doctor?" conference held earlier this year (22-23 May, Northampton), which focused on involving users of the health service in outcomes research, John Swales, director of the national research and development programme, implied that government funding for the "Informed Choice" initiative would be only short term.

1 Marteau TM, Slack J, Kidd L, Shaw J. Presenting a routine screening test in antenatal care: practice observed. *Public Health* 1992;106:131-41.

2 Dodds R. *Women's experiences of antenatal screening*. London: National Childbirth Trust (in press).

3 Greedy M, Newburn M, Dodds R, Gauge S. *Birth choices: women's expectations and experiences*. London: National Childbirth Trust, 1995.

4 Greedy M, Newburn M. *Report of the second phase of the choices project*. London: National Childbirth Trust (in press).

5 Henderson C. Prioritising the priorities: Is there a choice? *British Journal of Midwifery* 1996;4:117-9.

Commentary: Evidence based practice and antenatal ultrasonography—the need for more studies

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An attempt to introduce evidence based practice and informed choice for pregnant women is a worthy aim. Women deciding whether to have screening for fetal abnormality, either by ultrasound scanning or biochemical serology, should be given adequate information to allow them to understand fully the advantages, disadvantages, and limitations of the available tests. The separate information leaflets produced for patients and carers, as described by S Oliver and colleagues, are generally good. However, they presume that the evidence on which they are based (primarily randomised controlled trials) is appropriate. This presumption may not be correct.

For example, in the largest randomised controlled trial (RADIUS: routine antenatal diagnostic imaging with ultrasound) the end points used to evaluate ultrasound screening performed in the second and third trimesters included the overall perinatal mortality rate and the incidence of intrauterine growth retardation.¹ No beneficial effects in either of these end points were noted. In the Helsinki trial a lowering of the perinatal mortality rates in the screened population was noted if termination of pregnancy resulted from the identification of a major structural congenital abnormality.² Are these the correct end points to judge the effectiveness of ultrasound screening? The presumption should not be that ultrasound screening is appropriate only for women who would opt for termination if a serious abnormality were identified. For some women it is helpful to know in advance that major (or minor) abnormalities are present.³ In this context, a more correct end point to

judge the effectiveness of ultrasound screening might be the accuracy of sonographic assessment of suspected fetal abnormality and its correlation with findings noted after delivery. If judged in this manner ultrasound screening performs well.^{4,5} Similarly, to expect a single ultrasound examination performed in the early third trimester to reduce the incidence of intrauterine growth retardation ignores the complexity of the pathophysiology of this condition.^{1,6}

The negative views expressed by the few ultrasonographers reported on by S Oliver and colleagues warrant comment. They found it shocking that 1 in 200 fetuses aborted as a result of the scan were in fact normal or had only a minor abnormality.⁴ In simplifying information for the leaflets some of the evidence has become misleading. One of the two fetuses in question had gastroschisis (not omphalocele as suspected) while the other had large bright kidneys in the scan but subsequently normal kidneys on histology.⁴

We emphasise, however, that, although examination of the fetus after termination is extremely important, it cannot always provide answers about structural normality, let alone about function. The dissection and fixation processes themselves may sometimes disturb anatomic relations noted prenatally. The decision to terminate a pregnancy is occasionally taken on a probability (not certainty) that the baby will be seriously handicapped. Given the natural history and subtlety of certain serious congenital abnormalities, ultrasound scanning should not be expected to detect all anomalies prenatally. Some conditions—for example, micro-