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EVIDENCE BASED MIDWIFERY

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for answers to important questions. *Evidence Based Midwifery* **6**(**2**): 39

Systematic reviews: the never-ending search for answers to important questions

Key words: Systematic review, evidence-based health care, pregnancy, childbirth, practice guideline

When I have had the privilege of being an editor for the Pregnancy and Childbirth Group (PCG) of the Cochrane Collaboration, which began in 1995, it has been the best professional opportunity I have ever had. As a result I work with wonderful people all over the world, who share a common interest in generating the best evidence to inform the care of childbearing women. Moreover, I have learned far more about scientific rigour than I did during my formal graduate studies. The experience has been invaluable. However of course, the important question is what, if any, effects have systematic reviews had on the health and wellbeing of childbearing women and their families worldwide?

We have plenty of evidence of the worldwide importance attached to Cochrane Reviews. The reviews of great relevance to conditions in low-income countries have been incorporated into the World Health Organization Reproductive Health Library (UNDP/UNFPA/World Health Organization/World Bank Special Programme of Research, Development and Reseach Training in Human Reproduction, 2008) and widely disseminated, free of charge within low-income countries. The Reproductive Health Library also includes implications for practice as well as instructional videos, which help to bridge the gaps between evidence and the realities of incorporating the evidence into practice. Recently the PCG editors produced *A Cochrane pocketbook: pregnancy and childbirth*, published this spring (Hofmeyr et al, 2008). It is our hope that the book will provide handy access for clinicians to abstracts of Cochrane Reviews. These publications however, are simply examples of efforts to disseminate the reviews. They tell us nothing about whether there has been an impact on childbearing women and their families.

Our Cochrane Review of continuous labour support (Hodnett et al, 2007) led to national practice guidelines in Canada, the UK and the US. However, the only clear evidence I have that the review had a tangible benefit for childbearing women is that it led to new laws in Uruguay and Brazil to ensure that women have the right to companionship during labour. Of course, research evidence rarely results in legislation, and in one sense it is sad that legislation was needed to ensure that women were not forced to labour alone.

It seems there is an inverse relationship between the amount of solid research evidence and the number of prescriptions and proscriptions concerning pregnancy and childbirth.

Many important questions about the effects of care remain unanswered, partly because no one has completed a systematic review, and partly because so little research has been conducted on questions relevant to healthy childbearing women. Examples include advice, such as advice to abstain from caffeine, alcohol, soft cheeses, and sexual activity, and advice about exercise and what forms of exercise are safe at each stage of pregnancy. Some may respond, 'why bother doing a Cochrane Review when we know there have been no trials on the topic?' My response is that an 'empty' review can be very valuable, by calling attention to the lack of evidence. An 'empty' review can remind us that in the absence of good evidence, we have no right to be prescriptive to childbearing women, and it can be a clarion call to researchers to generate the evidence.

When I began doing systematic reviews, I had the naïve idea that generally speaking, a systematic review would provide a simple answer to a simple question: 'Is this form of care helpful?' Anyone who still thinks that a yes/no answer is common need only read a few Cochrane Reviews, starting with the one on continuous cardiotocography in labour (Alfirevic et al, 2006) to see how complex an answer can be.

Like all things related to the care of childbearing women, the results of systematic reviews can be upsetting when strongly-held beliefs are challenged. The Cochrane Review of home-like versus institutional birth settings (Hodnett et al, 2005) that we conducted generated enormous controversy in Australia. Results were misinterpreted and misused by both sides in a debate over whether freestanding birth centres should be available (Hodnett et al, 2007). (It seemed irrelevant that our review included no trials of freestanding birth centres).

So why do I keep pushing for more systematic reviews, and regular updates of systematic reviews? Because a careful systematic review is a necessary albeit insufficient condition for ensuring that decisions about care are informed by the best available evidence. What's more, it can tell us when to shut up, back off and not interfere.

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Begley C. (2008) The ups and downs of running randomised trials. *Evidence Based Midwifery* **6**(**2**): 40-45

The ups and downs of running randomised trials

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The author would like to thank Professor Marlene Sinclair for her kind invitation to present at the Doctoral Midwifery Research Society. In the majority of the examples that are given, the author gratefully acknowledges the work of her colleagues in the MidU team, Declan Devane and Professor Mike Clarke, the women who took part in the MidU study, the midwives in Our Lady of Lourdes Hospital, Drogheda and Cavan General Hospital for their fantastic contribution, all healthcare practitioners in the Health Services Executive (North-East Area) (HSE-NE) for their assistance and collaboration, and the HSE-NE for provision of funding.

This paper was the third professor of midwifery research paper given at the Doctoral Midwifery Research Society (DMRS) on 11 February 2008 at the University of Ulster. Please visit the DMRS website: www.doctoralmidwiferysociety.org

Abstract

Background. Randomised trials are considered to be the 'gold standard' of quantitative research methods and provide a high level of evidence to guide practice.
Aim. To assist midwifery researchers in planning and conducting randomised trials by sharing the experiences of a professor of midwifery.
Method. Significant issues are identified and discussed, using examples from previous studies.
Results. Three main issues are presented – the need to identify, prior to any study in childbirth, the precise outcomes that are considered important by clinicians, researchers and women, including the importance of clinical significance as well as statistical significance; the need for an *a priori* sample size estimation, based on valid, relevant data; and lessons learned in the preparation period of the introduction of the first two midwifery-led units in the Republic of Ireland, which were evaluated through the 'MidU' study – a randomised controlled trial comparing midwifery-led units with consultant-led care.
Conclusions. No matter what difficulties are encountered in undertaking randomised trials, the result will always contribute to the improvement of care for women, and this makes every well-designed study worth all the trials and tribulations involved.

Key words: Randomised trials, maternity care outcomes, clinical significance, sample size, collaboration, women-centred care

Introduction

This presentation is given using references to a number of studies conducted in the area of childbirth in Ireland, a brief description of which is given here to provide some background and context. Ireland is a small country, with just over four million people. There are approximately 63,500 births per annum and childbirth occurs in an environment of increasing medicalisation. For example, the caesarean section rate has increased from 12% in 1991 to 24% in 2003 (Economic and Social Research Institute and Department of Health and Children, 2007). One cause of this increased medicalisation is the 'economic model' of childbirth, which is prevalent in Ireland (Begley, 2001; Begley and Devane, 2003a, 2003b), and leads to more intervention. The term 'economic model' refers to a system of care based on the requirement for a swift throughput of women, in order to cater more cost-effectively for an ever-increasing number of births. This was the philosophy that under-pinned the introduction of the active management of labour in the National Maternity Hospital, Holles Street, in Dublin in the early 1970s (O'Driscoll, 1972), and has led to increased intervention ever since. Examination of practices through randomised controlled trials (RCTs) are one way of decreasing unnecessary intervention by comparing the advantages and disadvantages of each intervention, treatment or method of care.

Randomised trials

This presentation addresses three issues that can arise during randomised trials, and describes how difficulties in each of these areas were addressed in the context of various midwifery studies conducted in Ireland. To provide some background information, however, the cornerstones of RCTs, such as the importance of random allocation, blinding, comparison of outcomes and the null hypothesis will first be briefly explained.

Random allocation

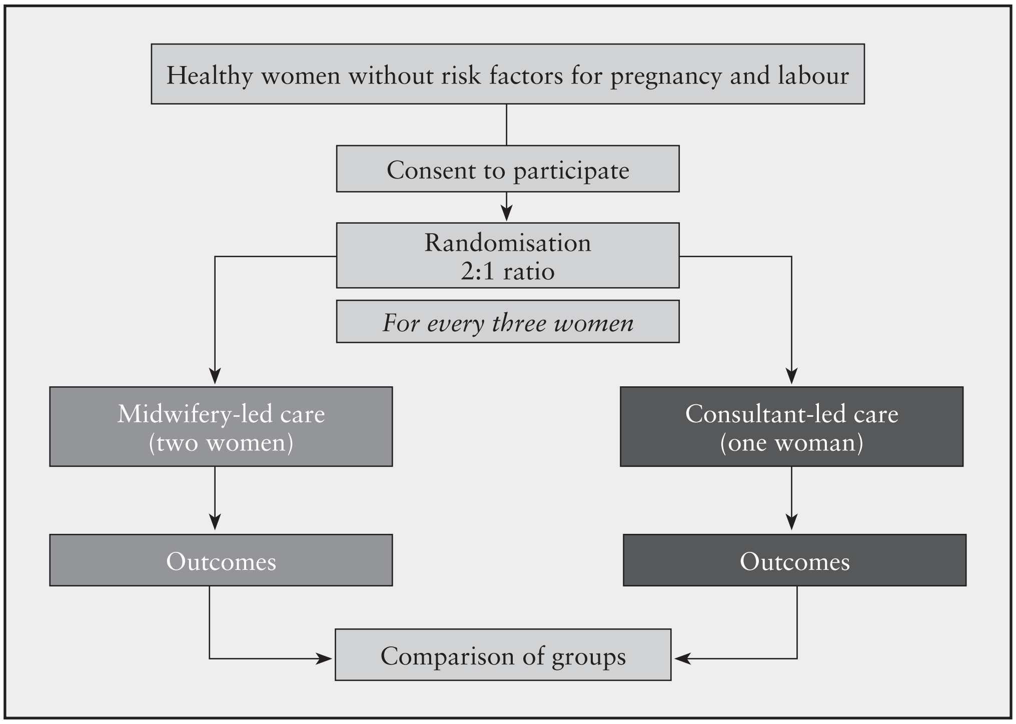
Randomised trials aim to compare groups of people who are similar in all major respects except for the treatment or care they receive. Consenting participants are randomly allocated to one of two groups – a control group, receiving standard care, and an experimental group (or groups), receiving the new method(s) of care. Random allocation is important, as it ensures that each participant has an equal chance of having either the old or new treatment. In addition, the group to which an individual will be allocated cannot be predicted in advance by either participants or healthcare professionals (Altman and Bland, 1999). This ensures that 'confounding variables' – factors that might affect the outcome – are distributed evenly between the two groups, and that any differences found will be due therefore, to the true effects of the intervention.

By chance, there may be more participants with a certain confounding factor allocated in one group than the other, so trials have to be large enough to ensure that these chance effects do not overwhelm the true differences between the interventions. It is also useful, when admission to the trial is complete, to compare all possible known confounding variables in all the groups, to ascertain that they are equally distributed.

Blinding

It is preferable to 'blind' the participants, clinicians and researchers to the allocated group so that no one knows to which

Figure 1. Random allocation in the MidU study



group each participant has been allocated. However, that is not always possible in studies in childbirth. For example, the Dublin third stage study (Begley, 1990) was not able to use blinding as midwives would have known by the reaction of the uterus that the injection they had given intravenously was ergometrine and not an inert substance.

Comparison of outcomes

Once random allocation has taken place, the participants in each group receive the treatment for that group, and the outcomes of both groups are then compared. This format is well known to most healthcare professionals, especially those undertaking higher degrees. An example of an RCT in Ireland is the 'MidU' study, which stands for 'midwifery-led unit'. This is an RCT comparing midwifery-led units (MLUs) with traditional consultant-led care, which was set up in the then North-Eastern Health Board (NEHB) in 2002. The aim of this study was to compare the two methods of care to ascertain if midwifery-led care (which had never been used at that time in Ireland) was equal to traditional care in terms of safety and acceptability. If no difference was found, the introduction of midwifery-led care would provide another avenue of choice for women, thus improving women-centred care. A diagram of how consenting women were recruited, randomly allocated and the outcomes compared is presented in Figure 1.

Allocation in this study was done using a 2:1 ratio, that is, two women allocated to midwifery-led care for every one allocated to consultant-led care. It was decided to do this in order to make more use of the refurbished MLUs and the extra staff allocated to them, which would otherwise not have been used to capacity. Using this ratio slightly increases the sample size required, but not by a large margin.

The null hypothesis

RCTs commonly use a null hypothesis, which is based on an assumption that there is no relationship between the variables of interest. Inferential tests are then used to provide evidence as to whether or not this hypothesis can be rejected. 'Intention to treat' analysis is used, whereby participants who are allocated to group A initially, but have to be transferred to group B for treatment of some problem, are still analysed with group A, as that was the group where they were intended to be treated. Similarly, those who are initially allocated to group B may need to transfer to group A, but would be analysed with group B. This ensures that the true effects of being given the group A (or B) treatment are seen, including any side-effects that meant they had to be moved to group B (or A) for therapeutic reasons.

Clinical significance versus statistical significance

The first main issue for discussion concerns the need to identify, prior to any study in childbirth, the precise outcomes that are considered important by clinicians, researchers and women. This brings into focus the question of clinical significance versus statistical significance, which will be discussed using examples from practice. First, the outcomes need to be chosen. It is recommended that, in preparation for studies in the area of childbirth, researchers should read Devane et al's recent paper on the development of a minimum dataset of outcome measures for maternity care (Devane et al, 2007), which presents a Delphi consensus of clinicians' and women's views as to the most important outcomes that should be studied. Researchers are encouraged to select from this list the main outcomes that would be of interest in their particular study.

One then needs to think about clinical significance, before computing the correct sample size to ensure statistical significance. This is important as otherwise one might correctly compute the sample size to detect a difference in outcome that would be statistically significant, but would have no clinical significance, which would render the study useless and unethical. For example, one study (not an RCT, but a quantitative, descriptive, retrospective study) found that episiotomy rates of individual midwives differed considerably, with some midwives managing a 'no suture' rate of 55% to 56%, as opposed to others with rates of 10% to 13% (Begley, 1986). Following presentation of these results, and relevant literature demonstrating the true (and few) indications for episiotomy to the midwives involved, a six-month period for practice of new techniques was provided. A repeat study was then carried out, which showed a considerable fall in the episiotomy rates, from 54% to 34% in primigravidae and similar falls in women of higher parity (Begley, 1988). There were increases, naturally, in slight, first degree perineal tears not requiring suturing and in intact perinea (see Table 1). However, what was of most interest was that the decrease in episiotomy did not lead to an increase in second degree tears that required sutures and, in fact, resulted in a statistically significant decrease in such tears in women having their third, or higher birth.

In this instance, the decrease in episiotomy rate is both statistically significant (chi-square=13.26, df=1, p<0.001) and clinically significant, as the decrease resulted in fewer women requiring sutures in their perineum postpartum. If there had been no decrease in second degree tears, then the fall in episiotomy rate would have made no appreciable difference in the number of women requiring sutures, therefore the statistically significant decrease would not have been clinically significant.

Another example is taken from an RCT comparing active and physiological management of the third stage of labour, which resulted in the cessation of the use of routine ergometrine 0.5mg, given intravenously to every woman following the birth of her baby in the study hospital in the 1980s (Begley, 1990). Two of the results are presented in Table 2, and show firstly, how the mean difference in blood loss between the two groups (85mls) is statistically significant. It is important to note here, however, the large difference in the standard deviation of the two means, which indicates that there is considerable variation in amounts of blood loss, particularly in the physiological management group. This means that many women would lose either a lot more, or a lot less than the mean amount (in the physiological arm, up to 223mls more or less than the mean). The standard deviation in the active arm was not as great, with the average amount by which scores in a distribution differed from the mean being only 127mls.

Table 1. Comparison of perineal state between study one and study two

Group	Number	Epis n (%)	Intact n (%)	First degree n (%)	Second degree n (%)
Para 0					
Study 1	582	314 (53.9)	93 (16.0)	61 (10.5)	114 (19.6)
Study 2	564	194 (34.4)	153 (27.1)	108 (19.2)	109 (19.3)
		chi-sq =44.38, df=1	chi-sq= 21.12, df= 1	chi-sq= 17.12, df=1	chi-sq= 0.012, df=1, p=0.91
Para 1					
Study 1	684	170 (24.9)	185 (27.0)	137 (20.0)	192 (28.1)
Study 2	603	43 (7.1)	204 (33.8)	209 (34.7)	147 (24.4)
		chi-sq= 73.71, df=1	chi-sq= 6.99, df=1, p<0.01	chi-sq= 34.9, df= 1	chi-sq= 2.25, df=1, p=0.13
Para 2+					
Study 1	1156	58 (5.0)	613 (53.0)	277 (24.0)	208 (18.0)
Study 2	977	20 (2.1)	578 (59.2)	272 (27.8)	107 (10.9)
		chi-sq= 13.26, df=1, p<0.001	chi-sq= 8.08, df= 1, p<0.005	chi-sq= 4.17, df=1, p<0.05	chi-sq= 20.86, df=1, p<0.0001

(From Begley, 1988)

Table 2. Comparison of active and physiological management of the third stage of labour

	Active n = 705		Physiological n = 724		Significance level
	Mean	**SD**	**Mean**	**SD**	
Blood loss	149mls	127mls	235mls	223mls	t=7.85, df= 1428, p<0.0001
Length third stage	11.3 mins	19.6 mins	11.6 mins	8.4 mins	t=7.53, 1428, p<0.0001

The second result shown in Table 2 demonstrates how the length of the third stage of labour differs in the two groups. Those women who received physiological management had a slightly longer mean third stage, by 0.3 minutes (approximately 20 seconds), which was a statistically significant difference. I have never yet met a group of clinicians who have believed this to be a clinically significant difference. Again, this result hides the fact that the standard deviations are very different. In this instance, the standard deviation in the active management arm was more than double that of the physiological arm (19.6 minutes as compared with 8.4). This was because 19 women in the active management group (3%) required a manual removal of placenta, compared with only one woman in the physiological arm (0.1%) (Begley, 1990).

It is essential to document, before one plans an RCT, the precise outcomes of interest, and the difference that one would consider to be clinically significant. It would be unfortunate and unethical to plan an RCT based on detecting a statistical difference in some outcome that, if found, would not make any clinically significant difference to care.

Sample size estimation

The second issue under discussion is the need for an *a priori* sample size estimation, based on valid, relevant data. When undertaking an RCT, the sample size must be large enough to ensure that any difference in outcome between the intervention groups is not due to the effects of chance. However, the sample size must not be larger than necessary as this would be unethical firstly, as it is a waste of resources and secondly, as more participants than are strictly necessary would be administered an intervention that is, possibly less appropriate.

In order to estimate the sample size correctly, one must first decide on the following:

- 'Effect size' (the anticipated difference in the primary outcome(s) between the control and experimental group, which should be clinically significant)

- The level of statistical significance considered appropriate ('p-value' or 'alpha level')
- 'Power' of the test (the chance of detecting the difference anticipated).

Effect size

The effect size is estimated from pilot studies, similar research in other countries or clinical observation. For example, the primary outcome that was used to estimate the sample size for the Dublin third stage study (Begley, 1990) was manual removal of placenta. The rate of manual removal in the study site for the previous two years (using the control group treatment of ergometrine 0.5mgs given intravenously) was 3%. There were no published data of manual removal rates in populations of low-risk women managed physiologically, but in the previous two years of full-time work in the study site – a tertiary care maternity hospital labour ward – using and recording physiological management of third stage for all women at low risk of haemorrhage, I had cared for no women who needed manual removal of placenta. Therefore potentially, the rate of manual removal in the physiological group might have been zero. It is not practical to consider the reduction of an intervention to absolute zero, given differing clinicians' views and abilities, so an effect size of 2.8% was chosen, based on a clinically significant reduction of manual removal of placenta from 3% to 0.2%.

Another example, using the primary outcomes chosen for the MidU study is based on the difference in induction of labour rates between the two groups – midwifery-led care and consultant-led care. The rate of induction in the study sites, Our Lady of Lourdes Hospital, Drogheda and Cavan General Hospital, under consultant-led care, is approximately 23%.

What reduction in induction rate would be viewed by the majority of clinicians as clinically significant? What would be seen as a significant reduction in the other group? For the clinical outcomes of the MidU study, the team chose:

- Induction of labour (a difference of at least 6% (23% reduced to 17%))
- Episiotomy (a difference of at least 7% (31% reduced to 24%))
- Augmentation of labour (a difference of at least 6.5% (24.4% reduced to 18%)).

The level of statistical significance ('p-value' or 'alpha level')

The level of statistical significance that is chosen determines the level of probability of falsely rejecting the null hypothesis. For example, if we set a p-value of $p<0.05$ (also termed 'the 95% level'), this means that we are willing to accept a 5% possibility of falsely rejecting the null hypothesis that there is no difference between the outcomes of the two groups – this is known as a Type 1 error (Pallant, 2001).

Power of the test

The power of a test is its ability to avoid making a Type 11 error (accepting the null hypothesis when it should be rejected) (Pallant, 2001). In general, if death is the result when you get your study wrong, then you need to choose a power of .99. If there is very little difference to people if your study finds the wrong answer, then a power of .70 would be acceptable. In human trials, the power is usually set at .80 or above (sometimes known as '80% power') (Machin et al, 1997).

Choosing a sample size

By selecting the clinically significant effect sizes in the outcomes of primary importance, and deciding on the alpha and power levels, one can use the sample size calculator included in most statistical packages to determine the correct sample size. In this way, the sample size needed for the MidU study was determined to be 1500. This assumed a criterion for significance (alpha) of 0.05, which has sufficient power at ≥0.80 to detect differences in proportions between midwifery-led and consultant-led care in the outcome measures of:

- Induction of labour (a difference of at least 6% (23% reduced to 17%))
- Episiotomy (a difference of at least 7% (31% reduced to 24%))
- Augmentation of labour (a difference of at least 6.5% (24.4% reduced to 18%)).

Varying effect, alpha and power sizes

By varying effect sizes, alpha levels and estimates of power, one can strengthen the study in various ways or control, to a certain extent, the size of the study to fit resources and time allocations. A detailed description of how this can be done may be found in the work of Devane et al (2004), from which Table 3 is reproduced as an example. Another useful resource is a sample size calculator, which can be found at: http://biostat.mc.vanderbilt.edu/twiki/bin/view/Main/PowerSampleSize) and can be downloaded freely.

Lessons learned from conducting RCTs

The third area for discussion focuses on the lessons learned in the collaborative process of developing evidence-based, clinical practice guidelines for midwifery-led care in the first two MLUs in the Republic of Ireland, which were evaluated through the MidU study. Two years of concentrated preparation preceded the start of the study, and the concomitant introduction of Ireland's first MLUs. Information on the study, including the draft and final proposal was circulated to all

Table 3. Sample size calculations with varying effect size, power and alpha levels

Effect size (%)	Power (%)	Alpha (%)	Sample size (per group)
10	80	5	384
5	80	5	1556
10	90	5	513
10	95	5	635
10	80	1	572
10	90	1	727
10	95	1	870
5	95	1	3531

(Reprinted from Devane D, Begley CM, Clarke M. (2004) How many do I need? Basic principles of sample size estimation. *Journal of Advanced Nursing* **47**(3): 297-302, with kind permission of Blackwell Publishing Ltd) key stake-holders. In order to develop guidelines for practice in the MLUs, intense collaboration and discussion took place with midwives, obstetricians, paediatricians, women, GPs and public health nurses (see Figure 2). Care process groups (CPGs) were set up in the two maternity units, attended by representatives of all healthcare professionals, who worked together with the research assistant to the study to develop the evidence-based guidelines and to deal with all clinical matters arising during the study. All scientific evidence was located and critically evaluated, draft guidelines were circulated for comment and amendment, practical problems with using the guidelines were identified and addressed, and some consumers were then asked to read and assess the guidelines from their perspective (Kennedy, 2008). The final draft was sent to two independent UK experts for comment.

Challengers

As preparation got underway and information of its process circulated to all key stake-holders, challengers to the introduction of midwifery-led care emerged. These were mainly from GPs, obstetricians, public health nurses and politicians:

GPs

GPs were concerned that if women booked directly with the MLUs, they might never book into the GP service during pregnancy. This could result in women missing out on primary health care that they were entitled to under the Mother and Infant Care Scheme, and the GPs losing revenue. The CPGs agreed to write into the protocol that all women would be referred to their GP on admission, unless they expressed a wish not to avail themselves of this service.

Obstetricians

While all the obstetricians attending the CPG meetings expressed positive feelings for the MLUs, a number had some concerns regarding safety and the efficacy of the guidelines. All these concerns were addressed during guideline development and the guidelines were circulated to all obstetricians, commented upon and agreed prior to the MLUs opening.

Public health nurses

The public health nurses (PHNs) were concerned as the MLU midwives were intending to visit women in their homes following early discharge, for a period of one to two weeks. This could potentially cause a conflict of professional views and advice, as the PHNs would visit all women in their area once in the first day or so post discharge. The CPGs agreed with the PHNs that the MLU midwives would visit up to seven days postnatally only, and then transfer care to the PHNs.

Politicians

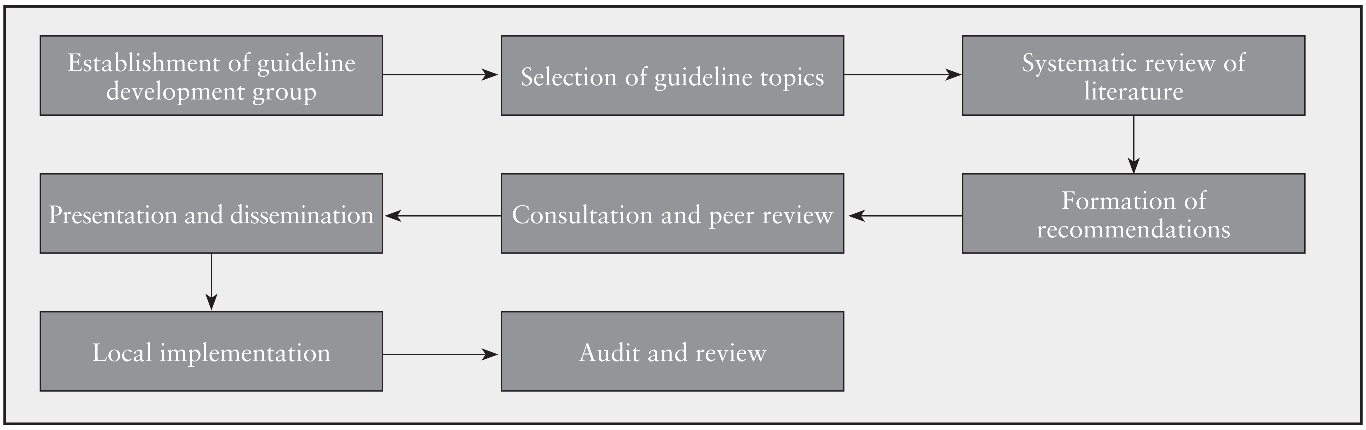
As the Department of Health and Children had closed two small maternity units in the region quite recently, the publicised opening of the MLUs was seen negatively, as a lesser alternative to full maternity services. Adverse publicity and comment in the media were counter-acted with factual information and positive advertising as the date of opening drew near.

Concerns

Following the two-year preparation period, the MLUs opened on 5 July 2004. There was considerable media interest, mainly positive (Kierans, 2004). The feedback from the women attending in the first month was extremely positive. A number of women who had elected to remain outside the study came forward requesting MLU care. Unfortunately, they could not be accommodated as the decision had been taken by the then NEHB to provide midwifery-led care in the context of an RCT only, until results were made known.

Then from 27 July 2004, three weeks after midwifery-led care had commenced, letters were sent out by a medical practitioner representing doctors in one of the hospitals. Further letters followed from the NEHB's medical advisor to the chief executive officer (CEO) of the NEHB, and from the Institute of Obstetricians and Gynaecologists, and the Irish Medical Council. All expressed concern. There is space to deal with only one of these in detail – the letter from the medical practitioner in one of the hospitals. These letters spoke of an 'absence of consultation and collaboration with the obstetrics department…', stated that the study was unethical, illegal and 'seriously methodologically unsound' and provided the author's opinion that the 'midwifery-led unit in its current form is unsafe.' These letters were copied to a number of people in managerial positions in the then NEHB and in the two hospitals, all those in the Drogheda and Cavan Care Process

Figure 2. Process of guideline development



Groups, and officials and chairpersons of two ethics committees, in Trinity College Dublin, the Maternity Services Taskforce, the Irish Medical Council, the Institute of Obstetrics and Gynaecology and the Royal College of Physicians in Ireland.

The MidU study team responded with a detailed letter enclosing full information refuting the allegations. This was easy to do as many of the comments in the letter were untrue, having been based on hearsay, and there was ample evidence to the contrary in the form of minutes of the CPGs for the preceding two years, the agreed protocol which was freely available on the Health and Safety Executive website, the agreed guidelines, and letters of approval from various ethics committees. In total, 29 items of correspondence and five meetings were required to discuss this issue. The response from others included letters of support sent by senior academics at Trinity College and the Maternity Services Taskforce. The CEO of the NEHB also wrote to the dean of the Faculty of Health Sciences, expressing his support for the study and his belief that it was sound. The corporate risk manager of the NEHB wrote a detailed report for the deputy CEO stating: 'I am satisfied that the safety aspects of the methodology and protocols applied in this project have, and continue to receive, priority.'

A meeting was then held between the medical practitioner concerned, the study team, and Professor John Bonnar from the Maternity Services Taskforce, chaired by the deputy CEO of the Health Board. The outcome of that meeting was the full withdrawal of all unsubstantiated allegations. The medical practitioner agreed that the study was ethically sound, but had a reservation around one methodological issue, believing that the study should have been powered on 'the seven minute Apgar score', not on the three measures specified above as primary outcomes. Despite not being an obstetrician, this individual was insistent, so we had to agree to differ. An acknowledgement was made at this meeting that the allegations were false, had been widely circulated and were potentially detrimental to the principal investigator's career. A letter from the medical practitioner, acknowledging that the study was ethically sound, was circulated to all recipients of the previous letter.

Lessons learned

- Spend plenty of time on preparation and communicating
- Make sure that ethical issues have been fully addressed before you start. Intense scrutiny by a number of professional bodies was unable to find any discrepancies in our procedures
- Make sure that policies and procedures are 100% evidence based, and have them evaluated by experts. Similar intense scrutiny of the guidelines by a number of experts reinforced the opinion that they were sound
- Have a long pilot study so that all issues are dealt with before the main study starts. I had learned this from a previous study. In the Dublin third stage trial (Begley, 1990), which had only the accepted norm of a one-month pilot phase, followed by one year of data collection, the postpartum haemorrhage (PPH) rates in the physiological management arm improved as follows, as midwives developed their skills:
    - Pilot study: 21%
    - First month: 18%
    - First four months: 12.3%
    - Last nine months: 6.7%.

If I had included a pilot study of at least three months, the final PPH rate in the main study would have been much lower. I therefore ensured that the pilot phase of the MidU study continued until all disagreements had been resolved and all personnel were used to working with the new guidelines. This pilot study took seven months and 606 women were included.

Conclusion

Throughout all the ups and downs described above, the original aim that guides all my research work prevailed: to improve women-centred care in Ireland. With this overriding philosophy, no matter what the difficulties, the result will always contribute to the improvement of care for women, and this makes every well-designed study worth all the trials and tribulations involved.

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Carolan M. (2008) Research among African refugee populations in Melbourne, Australia: dilemmas and challenges. *Evidence Based Midwifery* **6**(**2**): 46-51

Research among African refugee populations in Melbourne, Australia: dilemmas and challenges

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Abstract

Background. This paper arises from a qualitative study at an African women's pregnancy clinic in Melbourne, Australia.
Aim. The study intended to examine the facilitators and impediments to antenatal appointment attendance among this group.
Method. An exploratory qualitative methodology was employed, using an observational method and semi-structured interviews with attending women and healthcare staff.
Results. Research dilemmas encountered by the researcher during the course of the study are outlined and discussed.
Conclusions. Various strategies are highlighted to promote and facilitate sensitive data collection among African refugee women.

Key words: Research dilemmas, refugees, cultural research, midwifery, pregnancy care

Introduction

Culture is widely recognised as playing an important role in an individual's development and understanding of the world (Mani, 2006; Frederickson et al, 2005; Zhan et al, 1998; Kulig, 1994). Depending on their culture, individuals may vary quite substantially from the dominant cultural group in terms of perception and interpretation of events. This is especially true of understandings of health and healthcare needs. Illness, associated symptoms, and pregnancy are interpreted in light of individuals' knowledge and understanding. In this way, Zhan et al suggest that 'the meaning of health is embedded in people's lives' (1998: 42). For African refugee women, pregnancy care presents a case in point and continuous antenatal care, such as that endorsed by Western societies may be an entirely new concept. Moreover, it may be accorded little importance when compared to other life events. At the same time, this group is considered to be at risk from a variety of pregnancy disorders based on poor prior health and disadvantage (Harris et al, 2006; O'Heir, 2004; Ukoko, 2005). Such populations are disproportionately represented in maternal and infant morbidity figures, while also being associated with poor attendance rates at prenatal appointments (Lalchandani et al, 2001). It is thus essential that research efforts are directed at understanding complex health needs among this group, and examining ways of improving cultural acceptance of healthcare programmes. Recent trends of increased migration of African refugees to countries such as Australia (Department of Immigration and Multicultural and Indigenous Affairs, 2005), and the UK and Ireland (Koser, 2003; Heath et al, 2005; Kempton, 2002; Kómoláfé, 2002; Martin et al, 2005) highlight an urgent need for research on this topic.

Literature review

A review of the literature was undertaken. Searches of CINAHL, Maternity and Infant Care, MEDLINE, psycINFO and Sociological Abstracts databases for the past ten years (1997 to 2007), using the search terms 'research dilemmas', 'cultural studies', 'ethnicity', 'immigrant women', 'vulnerable populations', 'refugees' 'pregnancy care' and 'ethnic studies' uncovered a large range of papers, which were later hand-searched for fit with the review's intent. Additional articles were located by pursuing references identified in key papers and by searching journal databases such as Sciencedirect and Blackwell-Synergy.

This review revealed that in general, research effort among ethnic minority communities is recognised as important (Burchard, 2003; Gambrill, 2007; Murray, 2007; Patel, 2003), and that numerous methodological issues are associated with such populations. Members are often difficult to reach (Chesney, 1998; Mani, 2006; Spring et al, 2003; Chen et al, 2005; Chapple, 1998) and this relates to a variety of social and cultural issues. Some individuals wish to remain hidden because of uncertain legal or visa status (Chen et al, 2005; Meleis, 1996) and others may be resident in transient accommodation (Spring et al, 2003). Fear of authority (Spring et al, 2003) is commonplace, as is suspicion of outsiders (Chen et al, 2005; Mani, 2006). Cultural considerations may pose further barriers – for example, it may not be appropriate for members of some ethnic communities, such as Muslim women to engage in activities outside the home (Spring et al, 2003). Even when members of the target population are interested and engaged, concerns about signing documents such as consent forms (Chen et al, 2005; Mani, 2006; Davison et al, 2006), and worries about privacy and confidentiality (Mani, 2006) may prohibit participation. Other methodological issues may include difficulties of exact translation (Hall and Kulig, 2004; Marshall and White, 1994), reliability of data obtained through the use of interpreters (Twinn, 1997; Pitchforth and van Teijlingen, 2005; Wallin and Ahlstrom, 2006) and concerns about power (Marshall and Batten, 2004) and the reproduction of 'unequal social relations' in the research (Donnelly, 2002: 57).

Finally, the ethical conduct of research across cultures is a concern that is frequently raised in the literature (Adams, 2007; Barata, 2006; Marshall and Batten, 2004; Singer, 1993). Concerns centre around inadequate representation of minority groups in clinical trials (Gambrill, 2007; Patel, 2003) and the research exclusion of individuals on the basis of inadequate English language proficiency (Murray and Buller, 2007). Other concerns include the risk of exploitation, community damage, inadequate consent processes, and misinterpretation and misrepresentation of findings (Marshall and Batten, 2004). Marshall and Batten (2004) suggest that differences in culture and beliefs between academics and research participants mean that the two groups may be dialectically opposed and that this situation contributes to misunderstanding. Education and training in cross-cultural research for researchers is one strategy offered to overcome these difficulties. The active involvement of participants in the research project is also advocated and may include sharing data results and joint ownership of the research project (Crigger et al, 2001; Darou et al, 1993; Marshall and Batten, 2004).

In this paper, methodological issues encountered when conducting a qualitative study at an African women's pregnancy clinic are discussed. Strategies used to address these concerns are then offered. Finally, findings are compared to extant literature.

Background

In 2006, an opportunity arose to conduct a qualitative study at a local African women's pregnancy clinic in Melbourne, Australia. The clinic was established in the western region of Melbourne as an initiative to provide centralised services, such as interpreters to a growing number of African refugees.

The study aimed to seek information on the facilitators and impediments to antenatal care uptake at the clinic (Carolan, 2007). Participation was voluntary and unpaid. Women were offered an opportunity to comment on the antenatal care they received and factors that might facilitate attendance.

Prior to commencing, and in a bid to be as well prepared as possible, a search of the literature was conducted. This search enabled examination of approaches employed by other researchers conducting studies among ethnic minority and refugee groups. The following strategies, which aimed to improve the acceptability of the researcher in a cross-cultural setting, were commonly reported:

- Building relationships with key people (Chen et al, 2005)
- Learning as much as possible about the culture under study and in the process becoming culturally aware, sensitive and knowledgeable (Sargent et al, 2005; Campinha-Bacote, 1994)
- Using participants' explanatory belief models to explain the project (Chen et al, 2005)
- Addressing the research questions in ways that were respectful and non-intrusive (Chesney, 1998; Hall and Kulig, 2004)
- Supporting prolonged engagement with research population (Coulehan, 2006; Hall and Kulig, 2004; Mani, 2006; Wallin and Ahlstrom, 2006)
- Addressing power and equality differentials (Crigger et al, 2001; Marshall and Batten, 2004; Meleis, 1996).

Starting points

In a study at the clinic, the approach employed was informed by strategies identified in the literature search. Meetings were organised with key people, including midwives, a social worker, community liaison officer, Dinka and Arabic interpreters and a family and reproductive rights education programme (FARREP) worker. Through a succession of meetings, the study plan was outlined, including information on likely time requirements, numbers of participants sought and what the study hoped to achieve. Advice was sought on how best to approach sensitive data collection. Key staff at the clinic all agreed that participants would need time to 'get used' to the researcher and to understand that the study was not a threat. Attending the clinic, initially as an observer was advised. This strategy afforded an opportunity for familiarisation and at the same time allowed the researcher to learn something about the cultural backgrounds of the attending women. Dressing simply in a t-shirt and jeans – which was the almost ubiquitous uniform of staff – was also suggested. During the initial contact with the women, the midwife recommended 'keeping things simple' and not overly burdening the women, who were often recent arrivals from refugee camps. Most were unused to Western notions of pregnancy care or research. Over a period of three to four weeks, the women seemed to relax and came to trust the researcher. A form of reciprocal sharing of information resulted and women frequently asked questions about the researcher's husband and children. This was understood as a sense-making endeavour in the women's world, where female status was defined largely by the woman's family and the children she bore. Although Oakley's advice of being 'friendly but not too friendly' (Oakley, 1993) was on the researcher's mind during these sessions, it would have been difficult not to reciprocate and share information. Similar findings present in the literature and both Mani (2006) and Chesney (1998) report difficulties maintaining social distance when interviewing participants from minority ethnic groups. Others have spoken about the importance of reciprocity in the interview situation (Alvesson and Skoldberg, 2000; Carolan, 2003) and Hall and Kulig (2004) found in their study of Kanadier Mennonites, that the sharing of personal information was fundamental to the development of trust.

Although the atmosphere at the clinic was generally relaxed and friendly, just producing a notebook and pen was initially sufficient to silence the gathering. This situation seemed to relate to a fear of authority from time spent in refugee camps. Additionally, a significant percentage of women were not literate and viewed the written word with some suspicion. Any mention of audio-tapes had a similar and immediate dampening effect. This situation was dealt with by a simple process of explanation and acclimatisation. A notebook was produced at every clinic session and the researcher explained that taking notes aided recall. For the most part, the women seemed to accept note-taking as a Western idiosyncrasy. Most attendees were familiar with the midwife and other health professionals writing notes and referring to journals and books during consultation and, thus, this explanation made some sense to them. Such gradual acculturation and prolonged engagement in the field is prominently advised in the literature (Coulehan, 2006; Mani, 2006; Owen, 2001; Wallin and Ahlstrom, 2006) and indeed, Mani (2006: 4) found that 'entry into the field was not a one-time activity', but required long periods of sustained trust-building. In this study, this initial time investment seemed crucial to the success of the recruitment process. Indeed, participants later confided that they would not have spoken to the researcher if they had not had an opportunity to chat with her about her family.

Demographic information

Participants came from countries in north-east Africa including Sudan, Ethiopia, Eritrea, Somalia and Kenya, and were principally of Dinka and Amharic cultural and linguistic backgrounds. Length of stay in Australia varied from three weeks to two years. Only two participants were fluent in English. Some were not literate in any language although the majority understood basic writing in their spoken African language. Religious backgrounds varied among the women. The Amharic-speaking women were Muslim. Culturally, these women did not work outside the home and observed religious and traditional dress codes. The birth of a son particularly, was an occasion to celebrate and source of status for the mother. In comparison, Dinka women mostly belonged to Nilotic religious groups wherein members believe in one God, called Nhialic, who is believed to speak through spirits that take temporary possession of individuals in order to communicate through them. Traditionally, Dinkas live within a cattle-based economy and large families are the norm. Dowries are paid in cattle and girls are generally well regarded as the future wealth of the family. Female genital mutilation was common among women of Amharic backgrounds, and varied in extent. Dinka women tended not to be circumcised or to have the least radical form of circumcision. Socio-economic status was generally low among participants and most lived in transient housing or moved between several addresses. All but one group were asylum-seekers, recently arrived from refugee camps. Parity ranged from zero to 13, with the majority of women having had two or more children previously.

Methodological issues

Engagement

Once recruitment commenced, other methodological issues came to light and it became clear that participants simply did not understand the concept of doing research, as found by Chen et al (2005). Most considered pregnancy as something 'women simply did, because they were women', and as such, it was scarcely worth a mention. Thus, in a bid to better meet participants' understandings, the authors adopted ways of discussing the study that drew on the women's words and health belief systems. For example, the midwife encouraged attendance based on better outcomes for the baby and the women responded to this notion. All had experienced – either directly or indirectly – the loss of a fetus or infant. The study was therefore explained in similar terms, as important to improve the health of the babies born to African women and of the women themselves. A similar approach has been described by Chen et al (2005). The researcher was also mindful of the midwife's advice to 'go into their ways' and to 'explain the study using their understandings'. This seemed to work well and attending women were willing to participate in the study. In fact, a competitive trend emerged and women would sometimes ask why they had not been approached when another woman who had been attending the clinic for a shorter period of time had been invited to participate.

Ethical consideration

The project was approved by university and hospital ethics committees. Participants' names were changed in the reporting of the research in a bid to preserve participant anonymity.

Consent

Although the recruitment phase progressed well, there were issues with obtaining consent prior to interview. Women who had agreed to participate were later reluctant to sign a consent form and some required their husband's permission prior to consent. Initially, it was thought that recording verbal consent might provide a solution as participants were clearly concerned about signing documents. However, when they were offered this choice it transpired that most were more concerned about audio-recording. Eventually, all recruited women were satisfied to sign a consent form and this was achieved by detailed explanation of both the consent documentation and process. The process was also compared to one with which the women were now familiar – the signing of permission prior to procedures such as infant vaccinations.

The interview process

Another unexpected hurdle took the form of concern about the interview venue and clinic attendees were very concerned about being interviewed in a private room. Although participants had been offered a choice of venue and could elect to be interviewed at home or at the clinic, all but one of the final group of participants elected to be interviewed at the clinic. This decision may have related in part to the precariousness of the women's living arrangements. A small private room, adjacent to the clinic was organised for interviews. However, the women's reluctance to leave the waiting room was unanticipated and most struggled to understand issues of confidentiality and privacy. One participant quite reasonably pointed out that no one except the interpreter understood her language while others declared that they did not care if someone overheard. One woman seemed to sum it up for her peers when she said: 'There is nothing secret in this information… no one is interested in women's words.' As it clearly made the women uncomfortable, an open waiting area was used for interviews instead. This area was in clear view of the clinic waiting room, but geographically distant enough to afford some privacy. For the most part, interviews then proceeded without incident.

A final concern related to a fear that private interviews might be conducted to obtain defamatory information about others, particularly staff members. Four participants asked outright if the interview would get the midwife into trouble. This concern seemed to stem from the female refugees' prior experiences of 'private' conversations with authorities.

Keeping it simple

Prior to proceeding with the study, it was anticipated that there would be opportunity to ask the women a variety of questions about antenatal care uptake and the facilitators and impediments to clinic attendance. However, such was not to be the case and initial questions were modified when the women clearly did not understand what was being asked. For example, most did not understand the question: 'How did you feel about…?' or 'what are your thoughts on…?' Most equated the word 'feel' with physical symptomatology and when asked about thoughts they would simply say they did not have any thoughts. One interpreter explained that in Dinka, there was not an equivalent term for the English notion of 'thoughts'. Rough equivalents included mostly negative terms such as: 'fears', 'suspicions', 'concerns' and 'crazy ideas'. Asking women, 'how do you feel about the pregnancy care you receive at the clinic?' might elicit such responses as 'I feel tired a lot coming to the clinic' and 'I have to take two buses to get here'. Therefore a decision was made to simplify questions and thereafter women were asked:

- Do you like to come to the clinic? If so, why? If not, why not?
- What sorts of things make it easy for you to come to your appointments?
- What sorts of things make it difficult for you to come?
- How do you think we could make it easier for African women to attend clinic appointments?

Additionally, the questions were translated into Amharic and Dinka and were made generally available at the clinic. This strategy aimed to improve participants' level of comfort with the process and it also allowed women to reflect on their experiences prior to interview.

Recording data

A final difficulty during interview was the reluctance of women to allow audio-recording, where at the final count only one participant consented to having her interview taped. Although by this time, most women were used to note-taking, they were still a little suspicious and became anxious if the researcher took more than the most basic notes. Therefore a variety of shorthand was used and a summary of the interview was transcribed immediately after when the content was still clear. Although some data were lost in this way, the researcher's skills and recall improved as data collection progressed.

Discussion

A review of the literature indicates that many methodological issues are associated with research among diverse cultural groups. Such research is understood to be time-consuming and to require considerable effort (Mani, 2006; Owen, 2001; Hall and Kulig, 2004), including rapport-building and gaining the trust of participants. A variety of suggestions are offered as to how best to achieve this level of connection and some authors speak of the value of using an 'insider' to explain the project and to recruit participants (Hall and Kulig, 2004; Burnard, 2004). For example, Mani (2006), Hall and Kulig (2004) and Wong et al (2005) used the services of research assistants from target cultural groups to recruit participants, while Chen et al (2005) used an 'insider' to explain study concepts. On this point, however, there is some division. For instance, Chesney (1998) outlines how her study among Pakistani women could not have been conducted by an insider, as participants would not have been prepared to acknowledge thoughts and feelings to another Pakistani woman for fear of exposure or gossip. Meanwhile, Fowler (2002) suggested that researching within one's own ethnic group is not always the answer to cross-cultural research concerns. Fowler explains how, as an African-American researcher researching within the African-American culture, she was nonetheless clearly regarded as an outsider and as being affiliated with the university rather than the ethnic group.

In the general literature, cultural awareness and sensitivity among researchers is considered important and immersion in the field is seen as a means of gaining cultural knowledge (Campinha-Bacote, 1994; Sargent et al, 2005). Prolonged engagement in the field is thus advised (Coulehan, 2006; Hall and Kulig, 2004), as is relationship-building with key personnel (Chen et al, 2005). Such alliances are seen as likely to improve researcher acceptability and Chesney (1998) describes how her alliance with the doctor greatly enhanced her status in the research situation.

Similar to the experience gained through conducting the study at the African women's pregnancy clinic, difficulties with obtaining consent are frequently described. For example, Chen et al (2005: 114) spoke of a concern among immigrants that any signature might have 'legal consequences', while Chesney (1998) found that Pakistani participants viewed the consent process as offensive and as implying mistrust. For Mani (2006) and Hall and Kulig (2004), the consent process hinged on establishing credibility among participants and in allaying concerns about confidentiality, while Davison et al (2006) questioned the very process of obtaining consent, labelling it as contentious. There is further suggestion that the formal language and tone of consent documentation may be intimidating for non-English speaking individuals (Chen et al, 2005). Marshall and Batten (2004) discuss the need to approach informed consent on a case-by-case basis, taking into consideration cultural notions of self-identity within specific ethnicities. Although there is clear recognition of the consent process as problematic, there is little consensus as to the best approach and each of the works reviewed offered slightly different strategies for dealing with dilemmas. Chen et al (2005) and Hall and Kulig (2004) gave assurances regarding the confidentiality of the study, while Chen also found that presenting the consent form in a confident manner resulted in acceptance. In contrast, Chesney (1998) did not request signed consent and it is not clear if verbal consent was recorded instead. Mani

(2006), whose participants were postgraduate students and thus accustomed to the consent process spent time establishing herself as a trustworthy and ethical researcher prior to obtaining consent. Davison et al (2006) took a process orientation stance and spoke of building a framework to guide novice researchers. The author's approach drew on suggestions offered by Chen et al (2005), Hall and Kulig (2004) and Mani (2006) and involved a detailed explanation of the consent document and process prior to requesting signature.

While the interview setting proved problematic in the African women's study, similar findings are not identified in the literature and this lack of attention may relate to a general paucity of literature dealing specifically with research among refugee communities. The existing literature among diverse cultural groups, though not necessarily among refugee populations alludes to a small range of dilemmas related to the interview setting. These include the replication of hierarchical relations (Lussier, 2004) and the interview setting as less than adequate from the researchers' viewpoint. Wallin and Ahlstrom (2006) for example, speak of the importance of seating arrangements to promote non-hierarchical interaction during interview. Others, such as Chapple (2006) discuss the site of interview as potentially problematic for the researcher. Chapple (2006) discusses occasions of interviewing terminally-ill individuals in venues that were sometimes adjacent to noisy medical equipment. Thus, while the notion of the private interview room as problematic was not found, some parallel notions present in the literature. For example, Hall and Kulig (2004) spoke of trust and sensitivity as paramount when interviewing individuals from religious groups and Chen et al (2005) explored trends of suspicion and concern among South Asian participants but did not evaluate particular interviewing dilemmas.

Finally, while the literature generally supports qualitative research endeavour among refugee communities (Halabi, 2005; Thompson, 1991), until this time there has been little emphasis on difficulties encountered during data collection. Use of audio-taping was found to be especially problematic in the African women's study, but few similar experiences have been reported. Hall and Kulig (2004) present one exception and employed a strategy of short note-taking during interview as the most acceptable means of recording data without causing offence to Kanadier Mennonite participants. These authors spoke of being sensitive to the use of technology as contrary to Mennonite religious tenets. Instead, after each interview, the researcher returned home and recorded a summary of the interview and this is also the strategy employed here. In a discussion of a Thai nursing study, Burnard (2004) also spoke of note-taking as an alternate to audio-recording data, but this related to practical issues of dealing with excessive background noise.

Conclusion

In conclusion, this paper highlights the research dilemmas encountered by one researcher when conducting a study among pregnant African refugee women. Issues of trust and suspicion and concerns around 'private' interviews and consent-giving impacted significantly on the research process. Tape-recording of data and extensive note-taking proved similarly problematic. These difficulties required various methodological adjustments, and an emphasis on trust and rapport-building was considered fundamental to the process. Moreover, although the importance of trust and rapport-building is well documented in cross-cultural studies, associated factors of suspicion and fear of authorities among refugee communities receive much less attention.

It is not clear whether such difficulties are seldom encountered or whether they are commonplace but unreported. In general, the dearth of research effort among refugee communities seems to suggest that such research is hampered by anticipated difficulties.

Nevertheless, it is important to continue research in this field and increasing world trends of refugee resettlement mean that countries such as Australia, the UK and Ireland will become more multicultural in the future. Further research into the healthcare needs and understandings of diverse communities may ultimately influence healthcare delivery and the cultural acceptability of healthcare programmes.

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Exploring women's experiences of a Birth Afterthoughts Service

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Abstract

Background. Many UK maternity service providers offer postnatal debriefing services, but the evidence base is unclear as randomised controlled trials use different or non-specific interventions. There is also evidence that routine debriefing can be harmful to some women. While most studies demonstrate that women value the opportunity to discuss their experience of childbirth with a midwife, 'routine' debriefing can be harmful to some women.
Aim. To explore and evaluate women's experiences of the Birth Afterthoughts Service at North Bristol.
Methods. A grounded theory methodology was used and semi-structured interviews were conducted with a purposive sample of seven women who had used the service during 2005.
Findings. Two major themes were identified from the data – listening and explaining. These are central to both the women's experience of the service and the role of the midwife. Women valued the experience of talking about the birth with a knowledgeable midwife as this enabled them to 'understand' their journey.
Conclusion. Further research is necessary to evaluate the effectiveness of this type of service in reducing symptoms of psychological trauma.

Key words: Birth Afterthoughts Service, childbirth, grounded theory, psychological trauma

Introduction

It is thought that women need to understand the process by which they become a mother in order to adjust psychologically to motherhood (Raphael-Leff, 1991). However, a considerable number of women report feeling psychologically distressed following birth (Creedy et al, 2000). In an attempt to address this, Birth Afterthoughts Services have been implemented by midwives since the mid 1990s (Charles and Curtis, 1994; Crompton, 1996; Westley, 1997). Recent research by Ayers et al (2006) demonstrates that 78% of maternity units provide this type of service. However, there is a paucity of qualitative research evidence about the provision of these services, with no evidence to recommend any model of care for providing support to these women.

In common with many other maternity units across the UK, midwives at the North Bristol NHS Trust (NBT) introduced a Birth Afterthoughts Service in 2003. Any woman who has given birth in the NBT area and who identifies a need to use this service is able to self-refer. Health visitors, GPs and other professionals also recommend the service to women who have previously given birth within the Trust. Unpublished audit findings from the NBT Birth Afterthoughts Service show that all the women who responded to the questionnaire found the service helpful. However, there was insufficient evidence to demonstrate how they felt the service improved their wellbeing, or what elements of the service were helpful. An urgent need for more qualitative data to help midwives to understand the experience of talking about a distressing birth from the woman's perspective has been identified. This will enable midwives to ensure that the model of care used for the service meets the women's psychological needs.

Aim

The aim of this study was to explore women's experiences of using a Birth Afterthoughts Service in order to evaluate if, or what aspects of the service are of benefit to the women.

Objectives

The objectives of this study were to:

- Critically review the literature and identify existing gaps in the knowledge base
- Explore women's experience of the service.

Literature review

The National Institute for Health and Clinical Excellence guidelines for postnatal care (National Institute for Health and Clinical Excellence, 2006) state that women should be given the opportunity to discuss their experience of childbirth. Recent guidelines for postnatal mental health (National Institute for Health and Clinical Excellence, 2007) emphasise the need for midwives to support women who wish to talk about their experience of childbirth, but do not advocate routine, formal debriefing sessions. There is evidence that many women have unresolved issues surrounding their birth experience, and that these issues need to be addressed in order to promote psychological wellbeing (Creedy et al, 2000). Czarnocka and Slade (2000) have demonstrated that over 25% of women following birth showed significant symptoms of psychological trauma, with Ayers (2004) concluding that one-third of women consider their experience of childbirth as traumatic.

Qualitative research has established that women who are traumatised by their birth experience may have an intense need to know the details of their traumatic birth (Beck, 2004). During the mid-1990s, it was recognised that some women who suffered psychological trauma surrounding birth were actually experiencing post-traumatic stress disorder (PTSD) (Ballard et al, 1995). Subsequent research has shown a persistent prevalence of PTSD of 2% to 7% at six weeks postpartum (Creedy et al, 2000; Czarnocka and Slade, 2000; Ayers and Pickering, 2001; White et al, 2006). Psychological debriefing was initially considered good practice to reduce the symptoms of PTSD, but is now a controversial intervention (Ayers, 2006). Recent guidelines advise against the use of debriefing for PTSD (National Institute for Health and Clinical Excellence, 2005). However, this model of psychological intervention was developed to prevent PTSD by a debriefing session very close to the traumatic event, which may interfere with natural psychological coping mechanisms and presupposes that individuals need the same support (Hobbs et al, 1996; van Emmerick et al, 2002). Nevertheless, there may be aspects of this type of intervention that are of benefit to women following a traumatic birth. Kitzinger and Kitzinger (2007) conclude that women need to have their traumatic experience acknowledged and validated. Van Emmerick et al (2002) describes validation of trauma as essential in the process of recovery.

Ayers et al (2006) have expressed concern that midwife-led debriefing is used with postnatal women without clear evidence of its effectiveness. However, the evidence from randomised controlled trials (RCTs) of midwife-led psychological debriefing is conflicting, and difficult to evaluate, as there is no consistency in the type of intervention being used, no detail of the actual framework for the intervention, variations in the study groups and an inconsistency in the outcome measures.

Lavender and Walkinshaw (1998) and Gamble et al (2005) demonstrate benefits to women's psychological wellbeing following a midwife-led debriefing session. The trial by Lavender and Walkinsaw (1998) randomised primigravidae into two groups – one received a midwife-led discussion following the birth and the other group received no intervention. The outcome measure was postnatal depression although there are no details of the timing or the framework of the intervention. However the results demonstrated reduced incidence of postnatal depression in the interventon group. The RCT by Creedy et al (2005) randomised women already showing symptoms of psychological trauma into an intervention and control group. The intervention group received a midwife-led discussion within 72 hours of birth and telephone follow up four to six weeks postpartum. The intervention group reported decreased trauma symptoms, less depression and self blame. However, it is difficult to conclude from this evidence, what aspects were of benefit to the women.

Others did not find a reduction in symptoms of trauma or depression (Small et al, 2000; Priest et al, 2003; Selkirk et al, 2006). Small et al (2000) randomised women who had given birth by emergency caesarean, forceps or ventouse. The intervention group received a midwife-led debriefing prior to discharge from hospital and the outcome measurement was postnatal depression at six months. Priest et al (2003) randomised all women who had delivered healthy term babies, and the intervention group received a midwife-led formal debriefing session based on critical incident stress debriefing within 72 hours of delivery. The outcome measure was diagnosis of stress disorders and depression at 12 months postpartum. Selkirk et al (2006) randomised women irrespective of their mode of delivery, and the intervention group received a midwife-led debriefing session within three days of delivery, and the outcome measurements were depression, stress and trauma. Nevertheless, all these studies had a common theme of the women rating the opportunity of talking to a midwife about their experience of childbirth as positive.

Although it is not possible to draw conclusions from these studies, it is possible that the timing of the intervention and the presence of trauma symptoms are important factors. Most of the studies used an early intervention on all women whether they showed symptoms of psychological trauma or not. Only the study by Gamble et al (2005) addressed these issues. It is clear that the concept and timing of midwife-led debriefing needs clarification. It could be argued that the research relating to post-birth psychological debriefing cannot be generalised to Birth Afterthoughts Services, which allow women to self-refer when they are ready to discuss their labour with a midwife. These services encourage women to talk about their experiences, with a focus on helping them understand the events that occurred, and report any benefits. Charles and Curtis (1994), Smith and Mitchell (1996), Westley (1997), Axe (2000), Inglis (2002), Dennet (2003), Ayers et al (2006) conclude that these services may have a different effect to a debriefing service, but did not analyse this potential difference. Following a literature review, Rowan et al (2007) concluded that these midwife-led discussions should be differentiated from a psychological debriefing. Gamble and Creedy (2007) evaluated a framework for a midwife-led discussion and concluded that listening to women's stories, giving explanations, clarifying details and encouraging self-help were important elements.

Steele and Beadle (2003) found that although a majority of maternity units in the UK offered this type of service, there was an inconsistency in philosophy and approach. The Birth Trauma Association (2008) advocates undertaking research to determine the efficacy and most appropriate timing of postnatal debriefing.

Methodology

The literature review used the following databases – BNI, CINAHL, Cochrane Library, MIDIRS, psycINFO and Science Direct. Key words used were 'childbirth', 'debriefing', 'psychological trauma' and 'post-traumatic stress disorder'. The review focused on debriefing and counselling following birth to identify frameworks or models to define the current provision of debriefing or counselling for women. Attention was also paid to psychological trauma and PTSD after childbirth, in order to understand the effect of the trauma on the women seeking support from these services.

Phase two: Exploring women's experience of the Birth Afterthoughts Service

Grounded theory developed by Strauss and Corbin (1998) was chosen to allow the investigation of feelings, perceptions and beliefs that would not have been possible through quantitative methods (Mason, 2002).

Sample

A purposive sample of women who had used the service was invited to participate in the study. In keeping with grounded theory, sample size was dictated when data saturation was achieved and no new themes were emerging from the data analysis. Both researchers were service providers and acknowledged their potential for bias. In order to minimise bias, women who were not known to the researchers and who had used the service in 2005 were selected for interview.

Data collection and analysis

In-depth, unstructured interviews were used to collect data, allowing the women to explore their personal experience freely (Rose, 1994). The interviews each lasting about an hour were held in a venue of the women's choosing, usually their own home. Interviews are a popular method of data collection, and the researchers felt that the relationship between midwives and the women for whom they care, which includes empathy and intimacy, may facilitate the collection of data through interviews (Lundgren and Dahlberg, 1998). Open-ended questions were used such as 'tell me about...' to encourage the participants to express their feelings.

It also allowed the participant to steer the interview from their personal perspective, while enabling the interviewer to probe into individual replies in areas not previously considered (Parahoo, 1997). In order to enhance trustworthiness of the data collection, a counselling approach to data collection was used, with the use of repetition and reflection. This helped to ensure that the interviewers' interpretation fitted the participant's description of the experience. The interviews were audiotape recorded and later transcribed for analysis. A field notebook was also used, because as Cluett and Bluff (2000) describe, participants often provide rich data once the tape recorder is switched off.

This study yielded a substantial amount of qualitative data, which were analysed to create a description of the experience of women using the Birth Afterthoughts Service. The guidelines for data management described by Coliazzi (cited by Cluett and Bluff, 2000) were followed, that is:

- Collection of data from participants
- Examination of interview transcripts
- Extraction of phrases directly related to the experience
- Consideration of the meaning of these phrases
- Extraction of themes from the interpretation of the phrases
- The themes then become a description of the experience
- Returning to the participants with the results to check for trustworthiness.

Emerging themes and categories were discovered by using constant comparative analysis. Data collection ended when saturation was found to have been reached, with no new themes or essences emerging from the participants and the data were repeating (Streubert and Carpenter, 1995). Once the data were organised into themes and categories, an experienced research colleague reviewed the findings for consistency. No inconsistencies were noted, enhancing the reliability of the findings.

Ethical considerations

Local research ethics committee approval was given. The guidelines cited in the NHS research governance framework (Department of Health, 2005) were adhered to, including the right not to be harmed, informed consent, voluntary participation, confidentiality and anonymity. This is important since the psychological welfare of the participants was a concern. After each interview, a period of debriefing was held to resolve any immediate issues. Follow-up mechanisms identical to those used by the Birth Afterthoughts Service were also available should any abreaction have occurred. These included a GP referral to local counselling services. As experienced midwives, the researchers were well placed to undertake the interviews in an interested, sensitive and empathetic manner. Talking to an interviewer who shares a common interest and displays a non-judgmental and genuine interest in the participant's point of view can be an extremely rewarding experience (Corbin and Morse, 2003). Informed consent was obtained from all participants, who were also advised of formal mechanisms for complaint to the funding body, should they wish to do so.

Findings

Seven women were interviewed. Six had used the service after their first birth and the seventh following her fourth baby. Their ages ranged from 22 to 39 years old and at the time of interview none were pregnant. One woman had been diagnosed with PTSD and four had received support or treatment for postnatal depression. Women were not asked about the mode of delivery, but they all discussed this spontaneously during the interview. Three experienced an emergency caesarean section, three had ventouse or forceps deliveries and one had a normal birth with shoulder dystocia. Six of the women self-referred to the Birth Afterthoughts Service when their babies were between six and 14 weeks old. The other woman sought help when her baby was nine months old following counselling for PTSD.

Two major themes were identified from the data – listening and explaining. These themes are central to both the women's experience of the Birth Afterthoughts Service, and the role of the midwife in facilitating this discussion. The women need to be 'listened to', and 'understand' their experience of childbirth. The midwife needs to 'listen to' and 'explain' that experience. Sub-categories focusing on the women's experience of the service included:

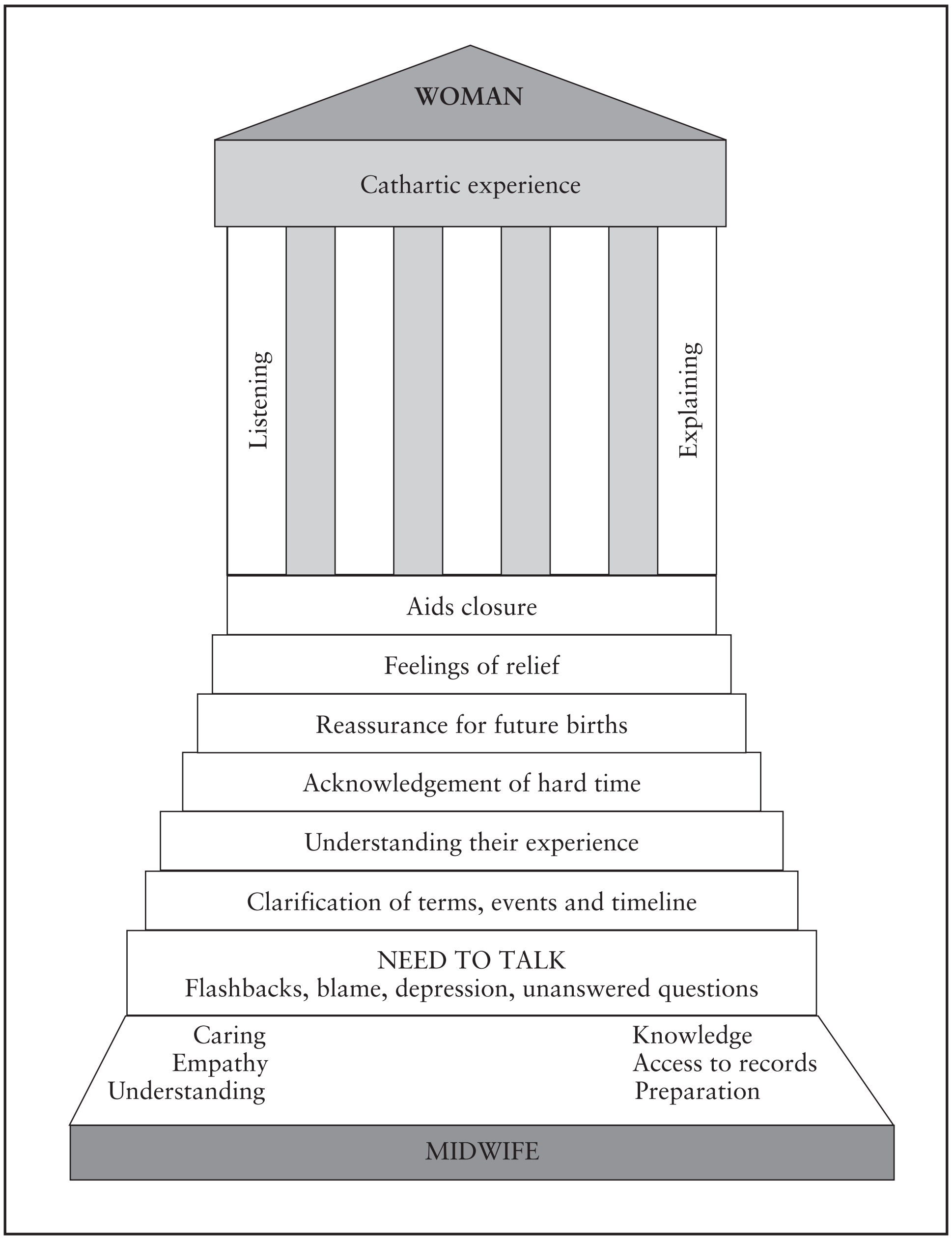
- The need to talk
- Clarification of terms, events and timeline
- Understanding their experience
- Acknowledgement of a 'hard time'
- Feelings of relief
- Closure.

Sub-categories focusing on the role of the midwife included:

- Caring
- Empathy
- Understanding
- Professional knowledge
- Access to records
- Preparation.

Using the image of a temple, it is possible to visually represent the themes that have emerged from this research (see Figure 1). The foundation of the experience is based on the role of the midwife, and this is represented by the foundation of the temple. There are two distinct aspects of the role that feed into the two main themes that emerge from this research as central to the women's experience of the Birth Afterthoughts Service. These themes of 'listening' and 'explaining' are represented by the two main pillars. The central steps within the temple that lead to the overall arch of the building represent the journey of the woman from feeling traumatised after their experience of childbirth, towards the cathartic experience following the Birth Afterthoughts interview. The overarching structure of the temple represents the focus on the woman's experience, which is central to the Birth Afterthoughts Service and this research.

Figure 1. Women's experience of a Birth Afterthoughts Service



The women all described the Birth Afterthoughts discussion as a positive and cathartic experience. The following categories identify different stages of this process.

'Need to talk'

Most of the women described symptoms of trauma, including flashbacks, blame, depression and unanswered questions, when describing the events leading up to them contacting the service. There was a common theme of the need to be listened to, in order to deal with this. Several women became very emotional and tearful at this point of the interview, and described these feelings in detail:

'It still upsets me now actually talking about it' (Participant 1).

One woman described constantly reliving their experience of childbirth through flashbacks:

'I was still thinking about it every day and reliving it when I was half asleep… which is a long time, to be, you know thinking about it all the time, playing it over and over again, and probably distorting things on the way' (Participant 6).

Another woman described blocking out her experience of childbirth and her feelings of blaming herself for her son being very ill:

'My baby had a blood clot on his brain, and I found it really useful just to talk, because I blamed myself, I thought it was my fault' (Participant 2).

This woman also linked her feelings of blame to her depression:

'I think I'd been depressed because I'd blamed myself for

him being ill' (Participant 2).

Another described how ongoing physical symptoms for four years had affected her during her second son's birth, because of unanswered questions:
'The consultant talked me into having a vaginal birth and I was completely unsure in my mind as to why, because I then had to go on and have repair surgery' (Participant 7).

'Clarification of terms'
Most of the women described the clarification of terms, events or times as being important to their understanding of their experience of childbirth, and a positive benefit of the service:
'She talked me through some of the wording that I hadn't understood… she was able to offer some explanations… like explaining fetal distress to me' (Participant 1).
'But when we went through them line by line, she could explain what was, you know, what had been happening' (Participant 3).

'Understanding their experience'
Several of the women described how understanding aspects of what had happened had helped them come to terms with the experience:
'Or you weren't able to push him out because of this, and sometimes that happens. And that fact was really helpful to me' (Participant 2).
'B*ut just sort of generally going through it logically and understanding what you know, what was the reason for each of those points in the labour, was quite interesting in itself, and for whatever reason managed to work on my brain and sort of help clear it through I guess'* (Participant 3).

'Acknowledgement of a hard time'
Several of the women described how having someone listen to their story and validate their experience as difficult or traumatic was helpful to them:
'I felt reassured that it wasn't me being pathetic… that, you know, actually what I went through was quite tough, and it um, I wasn't a complete wimp' (Participant 6).
'*It was the understanding that there was trauma there, and that you know… not to feel that you were a failure in any way'* (Participant 3).

'Reassurance for future births'
Although none of the women interviewed had become pregnant subsequently, several admitted that they needed to discuss their fears and try to understand their experience before facing another pregnancy and birth:
'*It was still traumatic and I'm dreading it one day'* (Participant 4).
'*I understand what went wrong, it didn't go wrong, just what happened, and that actually the chances of the same sort of thing happening are fairly slim… I mean I can't say I would look forward to it, but yeah, at least I was reassured that perhaps it wouldn't be a repeat, exact repeat, you know'* (Participant 6).

'Feelings of relief'
Several women talked of the relief they felt when they felt they had started to understand what had happened, despite their distress during the discussion:
'It felt a relief to be able to talk to someone that actually knew what I was talking about' (Participant 6).
'*… and it was only through going through talking through my notes in detail I was able to relive what had happened, but it was actually good to do that, it was quite therapeutic to talk about it'* (Participant 2).

'Closure'
Many of the women described how the Birth Afterthoughts discussion had put some closure on their experience:
'*I didn't feel as if I then needed to go on and talk about it to anyone further about it'* (Participant 7).
'*Virtually within days, almost overnight, I was able to say right, I've sorted that out now, and I've moved on'* (Participant 3).

The role of the midwife
The sub-categories focusing on the role of the midwife directly feed into the main themes of listening and understanding. The qualities of caring, empathy and understanding allowed the women to feel 'listened to'. Professional knowledge, access to records and preparation were aspects that allowed women to 'understand' their experience.

Caring
The caring aspect of the midwives' role seemed to help the women talk about their experience:
'She was very understanding, very caring, she made me feel more at ease to talk' (Participant 4).
'It was really helpful to have someone who really cared enough to listen to you' (Participant 5).
'I think having someone who cares enough to just listen to your experiences, and how you feel about them helps you really talk' (Participant 7).

Empathy
Empathy from a professional dimension was another important aspect of the midwives' role:
'*You want someone that can empathise with you'* (Participant 6).
'*You need to have someone with empathy, and you know unless you're actually with women in labour and can see things from their perspective, I don't think you would really know how to take that on'* (Participant 7).

Understanding
An understanding manner was also identified as important for women when talking about their experience:
'*I found sort of an immediate rapport with the midwife and I found her very sympathetic and understanding'* (Participant 3).
'*She was so understanding, otherwise I couldn't have talked about some of the things that happened… I think I was so ashamed… It really helped to know that some of these things are normal'* (Participant 2).

Knowledge

Midwives' professional knowledge and experience were identified as essential to helping the women understand their experience:

'*She was able to offer some explanations for some of the issues, like explaining fetal distress to me*' (Participant 1).

'*I was hoping she would be able to explain some of the notes so I would be able to understand better. And she did that brilliantly… she understood the technical side of it, rather than just the emotional side*' (Participant 6).

'*Somebody who knew exactly, who had seen so many births, who knew I wasn't sort of unusual or stupid*' (Participant 2).

Access to records

The maternity records were identified as an important resource for this discussion. Some of the women had seen their labour records already:

'*She talked me through some of the wording... I hadn't understood… yeah, it was really useful to see the notes again and to understand*' (Participant 1).

'*I don't think we could have had the session without the notes, because then she understood what had happened and could explain things to me*' (Participant 2).

One woman who had been diagnosed with PTSD and still suffered from occasional flashbacks found that reading the notes on an ongoing basis helped her to deal with this:

'*Yeah, it's something that I can go back to. I've got a copy, I can go back, I can read through it. Because I had a problem where I still do to some extent, I have flashbacks, and sometimes I'm not sure if the flashbacks actually happened, or it's sort of when your mind plays tricks, and it's sometimes handy to be able to go back and just read how things went*' (Participant 5).

Discussion

This study demonstrates the hidden value of the Birth Afterthoughts Service from a qualitative perspective and concurs with data from RCTs by Lavender and Walkinshaw (1998) and Gamble et al (2005). The findings also confirm the work of other RCTs, which demonstrate that women rate the experience of talking to a midwife positively, despite no clear analysis of the benefits (Small et al, 2000; Priest et al, 2003; Selkirk et al, 2006). There is no preceding published research using a qualitative methodology with which to compare these findings. Nevertheless, the two major themes emerging from this research support the framework of listening and giving explanations used in the development of Birth Afterthoughts Services by Charles and Curtis (1994). Moreover, the concept of women needing to understand their experience of childbirth in detail in order to feel more positive about this experience concurs with the psychoanalytical view that women need to understand the process by which they became a mother in order to psychologically adjust to their role as a mother (Raphael-Leff, 1991). The in-depth interviews allowed the women to explore their feelings following the Birth Afterthoughts interview, which showed that 'understanding' their experience of childbirth was crucial to their positive experience of the service, and highlights the importance of the professional role of the midwife in facilitating that understanding. The findings appear to support Ayers et al (2006), who conclude that a Birth Afterthoughts Service possibly has a different effect to psychological debriefing, which has been the focus of previous research. The theme 'acknowledgement of a hard time' demonstrates that the women appreciated their trauma being acknowledged, which concurs with the validation of the traumatic event being part of the recovery process in psychological trauma (van Emmerick et al, 2002). Kitzinger and Kitzinger (2007) affirm this role for midwives supporting women following traumatic births.

The timing of the de-briefing session is possibly crucial to its effectiveness. The women in this study self-referred when they felt able to talk about their childbirth experience. Research by Gamble et al (2005), which demonstrated benefits to women, used a later intervention at four to six weeks. The other research studies, which demonstrated no benefits, used an early intervention – on average three days – which may have interfered with natural coping mechanisms for psychological trauma (Hobbs et al, 1996). This study demonstrates benefits to allowing the women to seek support when they are ready. Many of the women in this study described how distressing it was to talk about their childbirth experience, and it is possible that they are instinctively following their natural coping mechanisms in the time frame within which they seek support. Although most of the women in this study sought help between six to 14 weeks after their baby was born, the researchers had not asked them to consider the appropriateness of the debriefing session.

Limitations of the study

Both researchers acknowledge their involvement in setting up the Birth Afterthoughts Service. However, the lead researcher is experienced and familiar with this methodology, so was able to provide appropriate support and supervision to the second. Furthermore, both researchers ensured that they did not interview women they had already met through the Birth Afterthoughts Service, reducing the scope for bias.

Conclusion

This small study using a qualitative methodology adds to the evidence that women who have unresolved issues benefit from a single discussion with a midwife. The data suggest that understanding the experience is a key factor in this psychological benefit, and that encouraging women to talk about their experience so that the maternity notes can be used to clarify any issues or missing gaps is beneficial.

Further research is needed to analyse the effectiveness of a Birth Afterthoughts Service using a quantitative and qualitative methodology.

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Factors influencing choice in birth place – an exploration of the views of women, their partners and professionals

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Abstract

Background. Despite initiatives supporting the concept of choice of birth place for women, the majority of women in the UK continue to give birth in a hospital environment.
Aim. To explore women's views and identify influences upon women's decisions regarding birth place.
Method. A qualitative study of women's, their partners' and professionals' views on birth place. Questionnaires, non-participant observation and in-depth interviews were utilised. A total of 50 women and their partners, residing in an urban area in the north-west of England were recruited at 12 weeks' gestation and followed up at 34 weeks and postnatally. A total of 12 midwives, 15 GPs and nine obstetricians practising in the surrounding area were interviewed. This paper reports the main qualitative findings.
Results. Three main themes emerged from the data: protection, maintaining the status quo and fatalism.
Conclusions. Choice in birth place was viewed as important by women and professionals. Despite this, women and professionals assumed birth would take place in the hospital environment. Women and professionals felt more at ease when birth occurred in the hospital setting and perceived it to be a safer environment. There was a fatalistic attitude towards the birth process and an acceptance of the use of intervention around the time of birth that strongly influenced women's decisions to give birth in a hospital setting.
Recommendation. Accurate information must be provided and current misconceptions addressed if women are truly to engage in birth place discussions. Professionals should be encouraged to reflect on current evidence and be more aware of how their own biases influence the provision of real choice in birth place to women.

Key words: Birth place, choice, qualitative research, women, views, professionals, partners, environment

Introduction

Recommendations that all women give birth in consultant-led maternity units (Peel, 1970) have resulted in the majority of births taking place in this setting in the UK. Today there is a need to provide greater diversity in birth setting as women vocalise their preferences through consumer organisations, and government directives champion the provision of choice for women.

The government recommends that an appropriate range of options be provided and women be advised of these to make informed choices (Department of Health, 1993, 2004, 2007).

However, not all women are aware of their birth place options (Lavender and Chapple, 2005) and there is a marked variation of those available across the UK (Birthchoice UK, 2007).

Furthermore, the commitment of maternity service providers in offering birth place choices is being questioned, as more services are centralised and options reduced (Orr, 2007).

There is inadequate evidence demonstrating hospital birth as the safer option for low-risk women (National Collaborating Centre for Women's and Children's Health, 2007). Despite this, 96% of women in the UK still give birth within the hospital setting, most commonly within a consultant-led unit (CLU) (Birthchoice UK, 2007; NHS Maternity Statistics, 2007). With low levels of maternal and perinatal mortality, the importance of examining practice and developing services in a way that can make a real difference has been stressed (Clement and Elliott, 1999).

In recognition of potential barriers to informed birth place choices, the authors conducted a study to explore the rationale behind women's choices and the influences on their decision-making. Views of women, their partners and professionals were sought.

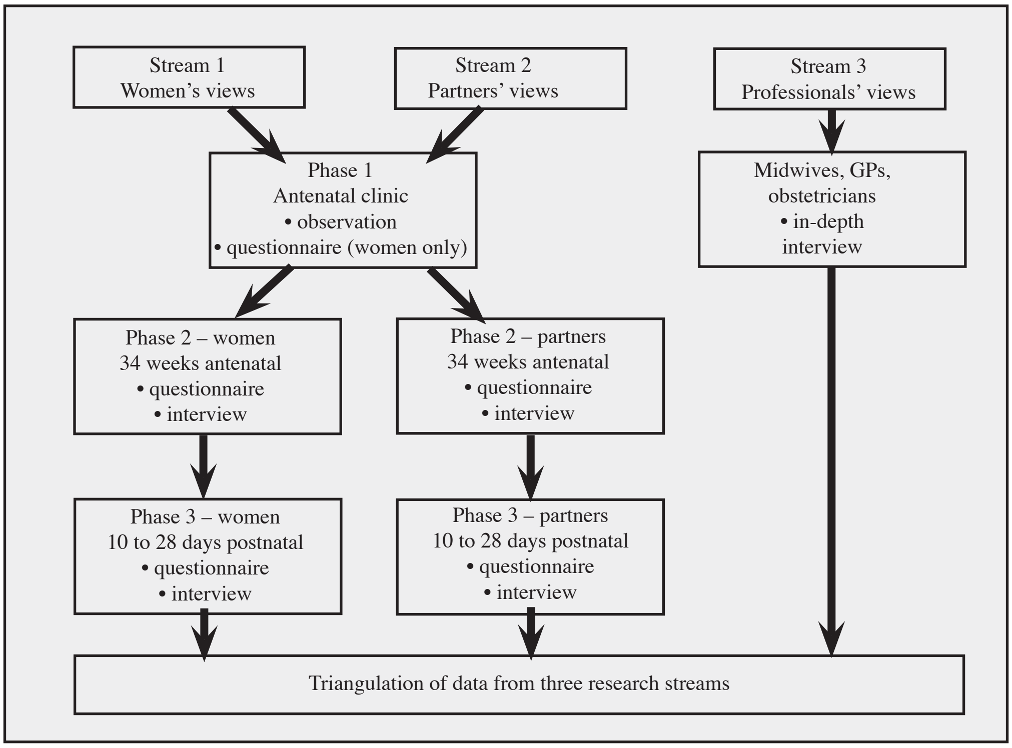
Method

A qualitative interpretative approach was adopted. Methodological and data triangulation were used to improve the validity of the analysis process and conclusions (Robson, 1993) (see Figure 1). Data were collected from women, their partners and professional groups involved in the provision of maternity care. Questionnaires, non-participant observation and in-depth interviews enabled multiple 'lines of sight' (Denzin and Lincoln, 2000), which added rigour, breadth and depth to the exploration.

Ethical approval

Permission to undertake the study was secured from the hospital Trust and local research ethics committee. Anonymity and confidentiality were assured, pseudonyms and study numbers were allocated to identify individual participants and consent obtained to use any quotations in research reports. Consent was

Figure 1. Study outline



gained prior to the inclusion of any quotations that could identify study participants.

Sample

The study was conducted in an area served by a large, inner city teaching hospital in the north-west of England in the latter half of 2006. A total of 8077 births took place that year – 0.7% at home, 26% in the midwife-led unit (MLU) and 73% in the CLU. All women seeking maternity care in a six-month period were provided with written research information. A purposive sample of women, stratified according to parity and Indices of Multiple Deprivation (The English Indices of Multiple Deprivation, 2004) was obtained to ensure women of varied birth experience and social background were included. The sample size was guided by data saturation. It was anticipated that around 40 women would be required to provide in-depth data. The number of partners was determined by those accompanying participating women at the first antenatal visit. A random sample of midwives, obstetricians and GPs practising in the area was identified from databases of practitioners – sample sizes were guided by data saturation.

Data collection

Women were contacted prior to any formal midwifery contact. Consenting women completed a questionnaire prior to their first hospital appointment. During this consultation – and following consent from the woman and her partner – a research midwife acted as a non-participant observer. Field notes were taken as an aid to describing the scene, behaviour, non-verbal communication and body language. Consenting participants were contacted again at 34 weeks' gestation, when they completed a further questionnaire and participated in a semi-structured interview. Women were contacted ten to 28 days following the birth and completed a questionnaire and interview. Partners received a questionnaire with a pre-paid envelope for return. Recruitment and data collection for professional groups was undertaken by a research assistant, who was not involved in maternity services.

A random sample of midwives, obstetricians and GPs practising in the area was provided with information about the study via telephone. Those who indicated an interest were supplied with written information and some participated in a semi-structured interview.

Analysis

Demographic data from questionnaires were entered into SPSS (version 12.0) for descriptive analysis. Interviews and observations were audio-taped and transcribed verbatim, using pseudonyms to preserve anonymity. Thematic analysis was undertaken independently by two researchers to minimise interpreter bias. Interview transcripts, observational data and field notes were triangulated using a constant comparative technique. Graphical matrices were utilised to identify themes common between individuals and the participant groups. Data from the women, partners and professionals were analysed separately and cumulatively, which enabled greater insight into the issues. Every participant was sent a summary of research findings for their information and comments. When presented at lay and professional forums, findings resonate with women's and professional's views.

Findings

A total of 46 women (22 primips, 24 multips) completed a booking questionnaire and 44 consented to being observed. Some 30 women (18 primips, 12 multips) completed a questionnaire at 34 weeks with 30 women (18 primips, 12 multips) participating in an interview. A postnatal questionnaire was completed by 30 women (15 primips, 15 multips), who also participated in a further interview. A total of 32 partners agreed to participate with 28 partners consenting to being observed. Some 20 completed a questionnaire at 34 weeks, with 20 being interviewed and 19 completing a postnatal questionnaire. The professionals totalled 36 – 12 midwives, nine senior obstetricians and 15 GPs were interviewed. The majority (94%) of women were white British and the median age was 29 (range 18 to 39). Most participants (80%) were married or co-habiting. The remaining 20% describing themselves as single. A wide range of educational achievement and occupational status was evident.

Of the 30 women studied postnatally, one had a planned home birth, seven gave birth in the integrated MLU, 16 in the CLU and six in the CLU's operating theatre. Of the nine obstetricians studied, two had planned home births.

This paper presents the main qualitative findings from this study. Future publications will report further on quantitative findings from questionnaires. The three main themes identified were 'protection', 'maintaining the status quo' and 'fatalism'.

Protection

Protection was evident in various forms and related to protection of the study participant or others. Two sub-themes were evident – 'belief in the safety of hospital birth' and 'feeling secure in the birth setting'.

Belief in the safety of hospital birth

Many participants across the groups believed hospital birth to be safer than birth at home or in a free-standing birth centre. Women's personal beliefs have been identified as the most important influence on UK women's decisions regarding birth place (Barber et al, 2006). Birth in hospital was viewed as a means of protecting one's self or one's clients from care perceived to be inferior in terms of safety. Many participants described events they thought would be difficult or impossible to manage outside of a hospital setting. Some acknowledged that there was a low probability of problems developing, however, descriptions of potentially life-threatening scenarios dominated many interviews. For the majority, hospital was best 'just in case':

'I think it would be safer in hospital. I mean if you've got the midwives at home and you've got the midwives in the hospital, you could say you've got the same thing, but as I say, you just don't know what else you're going to have to use' (Karen, PN).

'I have a friend who's pregnant and she's coming here (CLU) just because I think it's safest really, everything is here if you need it and if you don't, then great. I don't think I'd consider a stand-alone unit because you can't be sure' (midwife 1).

Almost every participant had a personal experience, knew someone or knew a story of a dramatic event occurring around the time of birth. There was less knowledge and experience of physiological birth and less kudos associated with the less dramatic birth stories. The perception of birth risks was therefore negatively distorted and this strongly influenced consideration of birth places other than a main hospital unit. To compound this, professionals emphasised the importance of screening women to determine risk status – activities such as history-taking and initiation of screening programmes predominated the first midwife appointment. Thus, women were offered a choice of birth setting according to their risk status with low risk being informed they would use the MLU unless they expressed a desire to use epidural anaesthesia. For high-risk women, this assessment highlighted worries regarding complications developing and limited the choice available. Focusing on risk can be pervasive and disempowering, undermining women's confidence in their ability to give birth (Edwards and Lawless, 2006).

One midwife was asked if she felt she influenced women's choice of birth place:

'Yeah, I think if we are quite positive about the MLU, the patient will get that from you and take that home and be more positive' (midwife 16).

However, professionals' descriptions of the MLU often centred on the quality of the décor and availability of single rooms rather than the philosophy underpinning care. The accommodation on the MLU is in fact similar to that on the CLU (single ensuite rooms) – however, descriptions were sometimes coercive, making the MLU appear superior and leaving women disappointed when their care could not occur there. This lack of clarity resulted in unmet expectations relating to birth choices similar to that described in the work of Jomeen (2007).

There is inadequate evidence demonstrating birth in an obstetric unit is safer than planned birth in a non-obstetric setting (National Collaborating Centre for Women's and Children's Health, 2007). Some midwives, GPs and obstetricians appeared unaware of, or ignored current evidence in their interactions with women. Many thought it very important that women were informed about the 'risks' associated with giving birth in community settings. A minority thought it important to provide information on the reduced risk of intervention or the positive psychological or social impact of giving birth outside a medicalised environment. The information was therefore often biased in favour of hospital birth. There was some concern that women may have poor comprehension of the information:

'Women should be offered the choice, but they need to understand that if there are complications then they have to understand what that complication really means. The problem is that most women don't think it's gonna be them' (obstetrician 4).

Jane was the only woman who gave birth at home. She discussed her concerns about safety with her midwife, and this assisted in making her decision:

'She [the midwife] kind of reassured me a bit on a few things, you know, what happens in an emergency and that kind of thing. It put my mind at rest a bit after I'd spoken to her.'

Researcher: *'What were the things that were worrying you about having your baby at home?'*

Jane: *'Just basically about what would happen in an emergency and you know how often they would come across this, are they equipped to deal with a baby that needs resuscitating, which they were. Also, what would be the circumstances where I would need to be transferred to hospital, things like that. In the end we came up with the decision that it might be even safer to have the baby at home with me having such a quick labour (last time).'*

Feeling secure in the birth environment

Across the study groups, participants spoke of the feelings they expected to gain or had experienced in giving birth in the hospital setting. They described feeling more secure, protected and subsequently more at ease and relaxed:

'I would feel a lot more comfortable being in a medical sort of environment knowing that if anything went wrong, everything is there for me rather than at home, where ok you might feel more comfortable being at home, but I would still have quite a few reservations about being at home. I'd feel a lot happier at the hospital' (Abby, PN).

Like in other studies (National Childbirth Trust, 2005), some women (n=7) preferred their birth setting to be 'home-like.' Most women wanted some homely features and some clinical features to be evident in the immediate birth environment. However six wanted their birth environment to look like a hospital and were reassured by clinical cleanliness and visible equipment.

Postnatally, women were shown a photograph of a birth centre room to stimulate discussion:

'There's no equipment on show or anything, that'd just put me off a bit. I'd want there to be a little bit of equipment' (Alison).

'Oh no, that would frighten me that. Big bath. (laughs). Birthing pool. No, there's no machines. So, I'd feel like I was going on me happy hols in that (laughs) not going in to give birth' (Joely).

These findings might reflect this population's expectation that births will take place in a busy hospital unit, being the most prevalent setting for over 30 years. The new modern buildings and the hospital's reputation as a centre of excellence, particularly with respect to advances in birth technologies was something many participants were obviously very proud of. This appeared to contribute to women's aversion to other birth settings.

Several women thought it was important to separate their birth experience from their home environment as a way of protecting themselves or their family from the birth itself or the memory of it. These women viewed birth as a potentially unpleasant, upsetting or embarrassing situation:

'I always felt that with a home birth, if it's not as comfortable a process as you would like it to be you're kind of walking into the same room, you know if it's in your house you'd remember it' (Paula, AN).

Her partner said: *'If anything goes wrong, we have to live here.'*

Like Levy (1999), women in this study regulated and utilised information on birth place in a way they felt preserved the balance of their own life and that of their family. The way women did this was evident in the data collected under the theme 'maintaining the status quo'.

Most professionals were more comfortable when women chose hospital birth. Some felt compelled to protect women from what they considered would be inappropriate decisions:

'If, as a professional, I give them (women) a little bit of advice, it's probably because I don't want to give them the choice that they're asking for, because I've seen so many things in my professional life that can go wrong: it definitely influences your views' (obstetrician 4).

Most professionals agreed their professional experience, dealing with emergencies and complications had increased their perception of risk. This negatively affected their views on birth away from the hospital facilities. When asked to consider where they would choose to give birth, most said in a hospital:

'I personally would not even think about delivering outside a hospital setting' (obstetrician 7).

Only three professionals had seriously considered or experienced home birth – interestingly, two were obstetricians. These participants appeared able to detach themselves from their professional experiences:

*'I don't deal with happy deliveries every day of the week… it's caesarean section and forceps and disaster and stillbirth and abruption and postpartum haemorrhage and babies that are flat, and yet, we had ours at home, therefore my professional opinion didn't affect my opinion at all, because if it did we would have had our babies in hospital and I would not believe that it was safe to have a baby at home, but I am objective about that. I can walk away from work and say sh** happens'* (obstetrician 5).

A minority of professionals demonstrated this ability to bracket professional experience. A lack of faith in physiological birth often influenced their approaches to the subject with women.

Maintaining the status quo

All participants agreed that the provision of choice in birth place was important. A number of factors acted to maintain the status quo, of high hospital birth and low home birth rates. The sub-themes 'the non-decision' and 'alternatives are foreign' were also identified.

The non-decision

As in earlier work (Madi and Crow, 2003), there was a general assumption across all groups that the majority of women would give birth in hospital. This detracted from conscious decision-making, information giving and the provision of choice in birth place. Most women approached their family doctors first, who asked which hospital they would like to attend or referred to the nearest one. Hospital staff assumed the woman had chosen a hospital birth because she was there to book in. Referral to hospital seemed to come as a whole package – the first scan, history-taking and inputting the woman's history onto the computer system. A referral quickly became a presumption that the birth would ultimately take place there.

The only woman who chose to change hospitals did so after much agonising about how people would react. Langley (2007) describes how delaying decision-making may be more effective in enabling women to become involved in birth place decisions, particularly home birth.

There was confusion across professional groups regarding who should discuss birth place and when and where this takes place. Such discussions often remained at a very superficial level. Observations and analysis revealed how women and midwives frequently blocked the flow of information on birth place:

Jane: *'(I was) talking to the midwife at my GP's surgery and she said would you consider a home birth [Good eye contact, leaning toward midwife, P also leaning in interested in midwife's opinion.] I just worry about it in case something happens if the baby's not breathing or…'*

Midwife: *'Yes' [silence].*

Jane: *'Right ok so...' [The midwife continues with the booking interview without further reference to birth place.]*

Many professionals considered that the development of the MLU had improved choice for women. However, only a few women felt they could have influenced this choice. As in Jomeen's study (2007), the degree of choice perceived differed greatly.

Many women did not consider they had made a choice or were unaware that a choice was available. Some were happy, even when choice had been limited or non-existent. A few women felt they had a choice of home, CLU or MLU. However, most women described choice as being between two hospitals. Many professionals felt women were happy with the current provision:

'They (women) will accept that whatever is in place is kind of... you know, is sort of good enough sort of thing and they're quite happy with it' (obstetrician 4).

Many women appeared content with the process – a few felt there had been inadequate opportunity to explore the options. Most however, felt that more information would have been unlikely to change their ultimate decision. The apparent apathy of this group towards exploring their birth place options came from their confidence that professionals providing maternity care would ensure they received the safest, most effective care. There was virtually no challenging of professionals' views and little insight into the possibility of iatrogenic effects. This explains, in part, why only a minority felt the need to engage in information-giving and discussions on birth. Given the very low home birth rate and relatively high intervention rates in the study area, the underlying assumptions are questionable.

Lorna was expecting her second child and described how she had an uncomplicated pregnancy with her first child and had considered a home birth:

'It felt like I was being steered down the path of well you're better off being here (the hospital)' (Lorna).

Her subsequent birth experience in hospital affected her self-confidence and her decision on where to give birth in this pregnancy:

'If I hadn't had an epidural last time, I think there's no doubt I would have thought really hard about having a home birth this time' (Lorna).

Few women said they had discussed birth place with their partners, and partners initially appeared indifferent to the subject of birth setting at interview. Most partners stated they would support their partner's decision, but were more comfortable when this decision was hospital. Most felt they had little influence over birth place decisions, however their potential to influence became apparent:

'We would talk about it (birth setting other than hospital) cos I'm not really for it myself. I'd have tried to talk her out of it. If she was really insistent on it then… I'd still try and talk her out of it, but if she said it's here or nowhere then I'd have to get on with it, but I wouldn't like it' (Mike).

Ensuring both the woman and her partner/support person are well informed and included in discussions on birth place may help reduce any potential conflict.

Alternatives to hospital are foreign

Hospital birth was believed to be the norm and women who chose alternatives were seen to be different:

'You're a bit odd if you want a home birth these days' (GP 4).

'Home birth is not the norm, the establishment doesn't push it, therefore it seems to be a slightly quirky thing' (obstetrician 6).

'If someone wanted to do it (birth at home), I'd think they were a new age hippy' (Lisa, AN).

Many professionals felt that women who wanted to explore alternatives to hospital birth would make this clear to them without prompting. Paradoxically, those interested in exploring options expressed anxiety about raising the subject and the reaction of others – most felt only assertive women would do so. The following quote is particularly disturbing as it is from a GP:

'I haven't even asked anybody (about home birth), you just feel a bit nervous about asking because you just wonder what people will think' (GP 8).

Women and their partners were often surprised or amused when the subject of choice in birth place was broached. Many were unaware of the options available and were unfamiliar with the practicalities of birth outside hospital:

'I don't even know if there was a midwife present, I don't know I just knew that she (friend) had chosen to have the child at home' (Rachel, AN).

Unsurprisingly, these participants experienced difficulty discussing the subject. During the 34-week interview, Chris acknowledged how taking part in this research may have been the only reason she was aware of the issue of choice:

Chris: *'I didn't know that if they said (name of one local hospital) I could say no I'll go to (name of another hospital).'*
I: *'Right. But you are aware of that choice now?'*
Chris: *'As of right now yeah.' (both laugh)*
I: *'Right, because I've just asked you about it?' (both laugh).*

Familiarity with a birth place was directly related to the way women considered this option for themselves. Jane spoke of how this affected her decision – she lives in a small area with a home birth rate four times greater than the study population:

'There's a growing number of home births, I think it is quite a lot of, you know, word of mouth, and people saying it is an option and people not realising it is an option maybe until you meet other people who've done that.'

Professionals' knowledge was also sometimes limited, particularly in the sample of GPs who were sometimes confused regarding their own responsibilities when one of their patients requested a home birth.

Fatalism

There was an abundance of evidence demonstrating the presence of fatalism associated with birth. This influenced the consideration of all birth place options.

Perceived lack of control

Unlike the women in the Edwards and Murphy-Lawless (2006) study who chose home birth, women in this study did not feel they could be in control of, or influence the birth process. A minority alluded to the idea that relationships exist between environment, labour progress and birth outcome.

For most, birth setting was not thought to alter the psychological or social journey into motherhood:

Researcher: *'Do you think problems are more likely to develop at home or in hospital?'*
Joely (PN): *'I don't think either of it matters. It's just human nature isn't it? Whatever's gonna happen is gonna happen.'*

Superstition played an important role for many:

'Touch wood everything's going to be straightforward' (Chris, 34 weeks).

Women in this study often exhibited views compatible with an externally orientated locus of control. Such women are fatalistic and hence more willing to put trust in others, such as midwives. These findings resonate with Kleiverda et al's (1991) study, which demonstrated that women who choose hospital birth have a more externally orientated locus of control.

Intervention as the norm

Many participants viewed intervention as a necessary and normal part of birth. A lack of faith in birth without intervention undermined consideration of birth place options other than a fully equipped hospital. The language used was insightful, often demonstrating passive acceptance of aspects of care professionals consider interventions. On experiencing a forceps delivery:

'I didn't expect that you had to push really… it was like you were still having to push, so that was a bit 'oh God' I've still gotta push. So I was a bit shocked over that. I just thought they come in and they assist you and that's it, but it doesn't work like that, you've still got to, you know assist them really' (Louise).

Intervention rates were similar to the target population. Many women experienced or were familiar with obstetric procedures. Induction of labour, epidural, instrumental delivery and even caesarean delivery were considered by some to be part of normal birth. Women's expectations that interventions would be available limited their consideration of birth places. Women justified their experience of interventions using terms such as 'had to' or 'needed to', indicating perceived necessity. Normalising intervention increased its acceptability. Louise describes 'normal birth':

'A vaginal birth really, and probably still having like a ventouse or erm forceps really, still having assistance cos I still think you've given birth, you've done as much as what you can, you just need a little bit of assistance' (Louise).

Some women described how intervention negatively influenced their birth experiences. Nobody attributed the cause of intervention to birth setting. The majority felt the hospital environment had assisted in coping with an inevitable or difficult situation:

'Everything that I thought about things going wrong went wrong. I was like 'oh my God, thank God I wasn't one of these, you know, home births' (Abbey PN).

The longitudinal nature of this study enabled an exploration of changing views following birth. Antenatally, primigravidae felt that experiencing birth would increase self-confidence and enable consideration of home birth for subsequent children. However, postnatally this was not evident.

The majority of women described how their experience confirmed the necessity of the hospital environment. Unlike earlier work (El-Nemer et al, 2006), where negative experiences of hospital birth compelled women to consider alternatives, this study demonstrated that both positive and negative birth experiences reinforced feelings that this choice was correct.

'I think I'd probably still go for a hospital birth, even though I delivered with just gas and air this time and so that's quite possible at home... both hospital births for me have worked out for us as a family so I'd probably be inclined to go that way again' (Heather, PN).

Angela was less satisfied:

'It was a horrible experience to be honest with you; I was really, really upset by it all. I don't think it was anyone's fault in particular.'

Her experience did not alter her views on birth place:

'I'd go back, there's no problem with the facilities at all… it was just my own personal thing I think it was just the way I felt myself about the actual childbirth.'

Conclusions

This study highlights the complexity of issues influencing women's choice of birth place. Some of the issues are deeply embedded in women's social background and psychology. Others are rooted in professional practice.

Early attribution of risk status to women, and a confidence that professionals providing maternity care will ensure service provision equates with best available care, were contributory factors. Women's decision-making about birth setting was influenced by their acceptance of hospital as the current norm, limited information on other settings and a reluctance to explore all options.

Women and professionals need to become familiar with non-medicalised birth settings. Professionals need to improve the presentation of unbiased up-to-date information on birth place and actively promote the full range of options, to overcome these barriers.

Helping women to make their needs explicit, and clarifying their perceptions and beliefs before deciding on the birth place is integral to the process of providing real choice. Professionals should be encouraged to reflect on current evidence and be more aware of how their own bias influences women's choices.

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Brodrick A. (2008) Exploring women's pre-birth expectations of labour and the role of the midwife. *Evidence Based Midwifery* **6(2)**: 65-70

Exploring women's pre-birth expectations of labour and the role of the midwife

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Abstract

Aim. To explore the pre-birth views of primiparous women in relation to childbirth and the role of the midwife intrapartum.

Objectives. To contribute to the debate on women's childbirth expectations within the current climate of escalating intervention rates and to explore how women view the role of the midwife.

Method. A qualitative framework encompassing an explorative descriptive design. Semi-structured interviews with eight 'low-risk' primiparous women between 34 to 41 weeks' gestation were analysed using Attride-Stirling's (2001) systematic method for thematic analysis.

Results. Two global themes emerged from the data – maintaining internal control and external control factors. These were supported by six organising themes: facilitating an intervention-free birth, going with the flow, faith in the system, fear of the unknown, role of support partner and role of the midwife. The findings suggest that women expect and hope for a birth devoid of intervention and place considerable faith in the hospital's ability to provide appropriate and safe care. While women viewed the midwife as a specialist, their understanding of the midwives' role intrapartum was limited. The importance of support and education for the birthing partner was also highlighted.

Implications. Midwives need to ensure they do not foster a state of dependence and that women are able to maintain choice and integrity throughout the birth experience. Women may need information regarding the role and expertise of the midwife intrapartum.

Key words: Midwifery, women's views, intrapartum expectations, role of midwife, pre-birth expectations, Attride-Stirling approach to data analysis

Introduction

In an evolving society, the norms and expectations surrounding childbirth are interwoven with an increasing reliance on technology and rising intervention rates. Set against this is the drive to promote normality, the *National Service Framework* (2004) and *Maternity matters (*2006) advocate that women should be supported to have as normal a pregnancy and birth as possible, with medical interventions recommended to them only if they are of benefit to the woman or her baby. With these shifts in service provision comes a shift in the attitudes, beliefs and behaviour of childbearing women and their families, and a re-evaluation of what is considered culturally and socially to be the norm. The aim of this study was to explore how women view childbirth and the role of the midwife. Evaluating how women perceive childbirth can have important effects on how they behave and cope with labour (Fenwick et al, 2005; Schneider, 2002; Lavender et al, 1999).

Background

In order to assess the current literature, the following databases were accessed: CINAHL, Medline, MIDIRS, British nursing index (BNI), psycINFO, Cochrane Database of Systematic Reviews and the National Library for Health. Key words used in the search included 'midwives' role', 'intrapartum care', 'labour', 'women's views', 'childbirth expectations', 'culture', 'belief' and 'attitudes'.

A detailed literature review revealed many studies examining women's views on childbirth, however these studies dealt with women's actual experience following birth. This included following normal birth (Murphy et al, 2003; Fisher et al, 1997; Hall and Holloway, 1998), instrumental assisted birth (Statham et al, 2001; Graham et al, 1999; Berg et al, 1998) and caesarean section (Mackey, 1998; Ryding et al, 1998; Dimatteo et al, 1993). In order to provide a focus, this review concentrated on women's pre-labour expectations of childbirth.

The review revealed that few studies have looked solely at women's pre-birth expectations especially in terms of the role of the midwife.

Many studies have explored women's views and satisfaction with childbirth (Berg et al, 1998; Booth and Meltzoff, 1984; Brown and Lumley, 1994; Dimatteo et al, 1993; Fenwick et al, 2005; Fisher et al, 1997; Green et al, 1990; Halldorsdottir and Karlsdorrir, 1996; Mackey, 1998; Murphy et al, 2003). Some studies have explored women's pre-labour expectations and compared them post-birth and similar themes tend to emerge – expectations surrounding pain and pain relief (Stolte, 1987; Melender and Lauri, 1999; Waldenstrom, 2004) and the negative effects of unmet expectations (Grace, 1978; Scott-Heyes, 1982; Booth and Meltzoff, 1984).

However the issue that seems to resonate most through this type of research is the issue of women feeling in control during childbirth events (Jacoby, 1987; Green et al, 1990; Simkin, 1991; Kirkham, 1992; Munn and Galsworthy, 1995; Lavender et al, 1999; Gibbins and Thompson, 2001;

Hodnett, 2002; Goodman et al, 2004). Indeed, Waldenstrom et al (2004) state that lack of control regardless of delivery mode is a strong predictor of a negative birth experience.

Most of the cited studies used retrospective analysis, usually examining women's views immediately post birth. However, women often feel a sense of relief and euphoria following birth and their post-birth feelings may not be so positive following a period of reflection, as demonstrated by Waldenstrom et al (2004), who showed that women who described their birth experience as positive following birth were less likely to do so after one year.

In terms of examining women's expectations of the role of the midwife, many studies have examined women's views of care-giver support following labour (Hodnett, 2000; Gagnon and Waghorn, 1996; Bluff and Holloway, 1994; Bryanton et al, 1994; Green et al, 1990; McIntosh, 1988). Few studies have examined women's expectations pre-labour. Stolte (1987) and Beaton and Gupton (1990) found that women were expecting to receive limited support, with caregivers being 'in' and 'out' during labour. Tumblin and Simkin (2001) and Berg et al (1996) found the opposite, with women expecting continuous support. A trusting relationship between mother and midwife was also considered important. Simkin's (1991) long-term study concludes that how a woman is treated by the professionals on whom she depends may largely determine how she feels for the rest of her life.

Methodology

The subjective nature of this study, which aims to explore the values, beliefs, behavioural and knowledge systems of women during pregnancy and childbirth required a qualitative framework to research enquiry. This enables the researcher to gain an 'emic' perspective (Schwardtz, 1994).The objectives of the study required an approach that would explore and describe the dimensions under investigation therefore an explorative descriptive design was adopted (Polit and Hunglar, 1989).

A total of eight 'low-risk' primigravid women were recruited by their community midwives. For the purpose of this study, 'low risk' was defined as women who had not been hospitalised during their pregnancy and who had no underlying medical condition that might warrant obstetric surveillance. Women who matched the criteria and who expressed an interest in taking part were given a pack by the community midwife containing a participant information sheet and an opt-out form with a pre-paid envelope. After a period of seven days, the researcher made telephone contact with the first ten women who expressed an interest. All ten agreed to take part, therefore the recruitment phase was stopped and interview dates were set. The first two interviews were used as pilot interviews.

Semi-structured interviews

The participants, whose identities were known only by the researcher were interviewed between 34 to 41 weeks' gestation using semi-structured interviews. Selecting women in the last trimester was intentional as women would have had some contact with midwives and be able to form opinions about their role. Also, women would be focusing more on their pending labour, having received considerable information from a variety of sources that will have shaped beliefs and feelings towards childbirth.

With the consent of each woman, the interviews took place in the participant's home and were tape-recorded to ensure accuracy of information gained. As with all interview-based research, the successful collection of data is dependant on the interviewer's interpersonal skills and the ability to probe in a neutral manner. To address this, two pilot interviews were conducted to refine the interview questions and hone the interviewing skills of the researcher – each interview took the same format. Women were asked the same pre-determined set of questions. The interviews took between 40 to 60 minutes. Following the interview, field notes were written and the tape listened to in its entirety. The tape was then transcribed verbatim. The only exception to this was any identifying information relating to the participants, other midwives and/or the geographical area. Transcription was then rechecked against the audiotape for accuracy, the transcribed pages double-spaced and each line numbered to enable analysis.

In order to demonstrate an open and visible process to the data analysis, Attride-Stirling's (2001) systematic method for thematic analysis was adopted. Data reduction was achieved by applying codes to the transcribed interviews and after a period of data immersion, themes were formed. In order to assist with the abstraction of themes, each coded interview was copied on to different coloured paper, coded segments were cut up and placed together. Basic themes were easily applied and after a period of time, organising themes were identified that embraced more abstract principles. The principle metaphor in the text as a whole formed the global theme. Attride-Stirling (2001) then describes two further processes: exploration of the text and integration of exploration. Thus original text segments are used to demonstrate the interpretation of the themes and elaborate the analysis for the reader. An illustration of the thematic network provides a further visual audit trail for the data analysis.

Ethical considerations

The principle of respect for autonomy involves voluntary participation and informed consent. The participants in the study were all given an information sheet detailing the research and their role within it. A seven-day cooling-off period was also included. Before interviews began the women were again given the opportunity to withdraw. Written informed consent was obtained from each participant.

As with all qualitative research, it was recognised that the sensitive nature of the inquiry and exploration of personal feelings could cause upset to participants. There was also the potential for conflict from the role duality of the investigator between researcher and midwife.

Action plan

In order to address these points, a clear action plan was made prior to commencing interviews. Firstly, it was made clear to participants that they could choose not to answer questions if they so wished. Secondly, notes were made throughout the interview, which were then used to guide a debriefing period

Table 1. Global themes and organising themes

Global theme	Organsing themes
Maintaining internal control	Facilitating an intervention-free birth Going with the flow Faith in the system
External control factors	Fear of the unknown Role of support partner Role of the midwife

at the end. This enabled any questions or discrepancies to be discussed. This proved particularly useful as the participants often asked questions relating to labour during the course of the interview that could not be answered at the time for fear of influencing the data. Thirdly, contact details of a research supervisor were available to all participants if they had any concerns about the way the interview or study was being conducted. It was recognised that conducting a small scale research study such as this at local level required careful consideration in terms of anonymity for participants. In accordance with ethical rules, all audiotapes were stored securely and coded with numbers so that participants were not identifiable. The list of names of those who participated was also stored securely and separately. All the participants agreed to their narratives being used in the final writing up of the research.

It was intended that participants would be involved in verifying the analysis, however ethical approval took longer than planned and the time scale on this study then made it impossible. A senior midwifery colleague was asked to independently verify the emergent themes and their interpretation.

This research was completed at the end of 2005 as part of an MSc in midwifery. Women were recruited from the district general hospital where the researcher works. Ethical approval for the study was gained via the local research ethics committee and from the hospital's research and development department.

Findings

The eight women recruited for the study were all caucasian and in part-time or full-time employment. Three of the women were between 20 and 29 years of age, the remaining five were between 30 and 34 years of age. One woman did not have the support of a partner or spouse.

The findings are presented in textual form making use of quotes from the interviews to illustrate the thematic analysis.

Two global themes emerged from the data: maintaining internal control and external control factors. These were supported by six organising themes, which will be discussed in turn (see Table 1).

Global theme one: maintaining internal control

Facilitating an intervention-free birth

All the women talked about wanting a natural childbirth with the emphasis on avoiding interventions and all believed this was possible:

'I'm very much a person that wants the birth to be as natural as possible' (Aggie).

'I would like to do it without any drugs or anything' (Ellie).

'I would like to keep it chemical free' (Dyliss).

Certainly the need not to rely on traditional pain relief methods featured highly, though this was often due to a fear of the procedure itself rather than a need to protect the desire for natural birth:

'My thing is, I am terrified of needles and so the thought of an epidural or a caesarean section would be furthest from my mind' (Caitlin).

All of the women talked about ways of coping in labour to try and avoid analgesia:

'I definitely like the hot towels they used at the active birth class' (Hannah).

All of them expressed a wish not to be on the bed. This was related to facilitating a more natural birth and also to the issue of control:

'I wouldn't like to be on the bed, mobile, yeah mobile for as long as possible… I think you have more control over yourself if you're mobile' (Gwyn).

'Going with the flow'

While all the women wanted to facilitate an intervention-free birth, they all stated a need to keep their options open. This coping mechanism gave them a 'get-out clause', if their expectations were not realistic. It helped them deal with uncertainty and so still maintain a degree of internal control. The term 'go with the flow' was featured highly among the responses:

'I know what my ideal is however I may need something else for the pain, it may not go to plan… I will just go with the flow' (Bren).

'I am not, you know, all for natural and would not touch anything… I'm quite happy to go with the flow' (Hannah).

Faith in the system

All of the women believed that the hospital was the most appropriate environment to give birth safely. This acceptance that everything would be okay if they were in hospital was used as another coping mechanism in an unpredictable process. The need for security meant that none of the women would consider a home birth. Hospital was described as where *'all the medical team are to hand'* (Bren).

When asked about giving birth in a free-standing midwife-led centre, only two of the women said they would feel safe. The others viewed it the same as a home birth:

'What's the point of going to a unit like that when if you were at home you get two midwives anyway so you've got two specialists there, but if things do go a bit wrong you are gonna have to be moved anyway, so I might as well stay at home' (Aggie).

All the women felt confident that they could have an intervention-free birth in hospital and felt that if intervention did become necessary, it would be for the best:

'If I did have to have one (caesarean section), it would be for obvious reasons either for the baby or for me' (Aggie).

In contrast to the elements of needing control, all the women described having very passive roles when thinking about their labour in hospital:

'I will be guided by the professionals. As far as I'm concerned, the people at the hospital are experienced: they know what is best for me and baby' (Bren).

'I can imagine me listening to them and taking their advice and doing what I am told' (Gwyn).

Global theme two: external control factors

Fear of the unknown

While all the women described themselves and their pregnancy as 'healthy' and 'problem free', this did not comfort them when looking ahead to labour. A total of six of them described a sense of foreboding:

'It's that nagging doubt at the back of your mind – I've sailed through this bit, so why should I do the last?' (Aggie).

The acceptance that childbirth is untested waters seemed to dominate their thoughts:

'I think it is just that fear of the unknown… you have been told what is going to happen and you read what is going to happen and you just have no idea' (Ellie).

For all the women, safety of the baby was the main concern. The issue of pain also threaded its way through all the interviews:

'The pain does concern me and how I'm going to cope with it' (Ellie).

For two of the women, it was the pain associated with perineal trauma rather than pain associated with contractions.

Role of support person

All of the women expected their partners to be at the birth. Some of the women were tentative about the level of support they would provide and expressed concern that their partner would not cope:

'I think it will be quite difficult for him, it is not something he is looking forward to… it is very difficult, isn't it, to see your partner in pain' (Bren).

What did emerge was that five of the women had attended active birth classes. They all commented on how much their partners enjoyed the classes and all felt their partners were better equipped to deal with the support role in labour:

'My husband really liked that (active birth class)… it has prepared him for what's coming' (Aggie).

Role of the midwife

Drawing upon their experiences with the community midwives, all of the women viewed the midwife as a specialist:

'The fact that midwives are specialists in their field gives you extra reassurance' (Bren).

None of the women understood what the midwife actually did during labour:

'I don't know… probably making sure everything is going as it should be' (Aggie).

Most of the women mentioned the physical side of labour:

'Checking how far you are dilated, checking your blood pressure… and checking the heartbeat' (Ella).

Most of the women used the word 'support', but were unable to substantiate it:

'Being there for reassurance… I have not really had any thoughts about it, there as support really' (Bren).

While they used the word 'support', none of the women expected to have much contact with the midwife – the term 'popping in and out' was used frequently:

'I guess they (midwife) will pop in and out and you can always press the button I guess… I imagine it will be just me and my husband' (Caitlin).

'They (midwife) wouldn't stay with you' (Gywn).

In relation to which healthcare professionals they would see during labour, they were unsure:

'I imagine one particular midwife being in charge and I suppose a few nurses to do your observations' (Hannah).

'I should think a doctor will come along at some point' (Gwyn).

Discussion

Control was a major feature of this study and perhaps an unsurprising one, given the number of other studies that also validate its importance (Goodman et al, 2004; Waldenstrom et al, 2004; Hodnett, 2002; Gibbins and Thompson, 2001; Lavender et al, 1999; Munn and Galsworthy, 1995; Simkin, 1991; Green at al, 1990). The organising themes 'planning for an intervention-free birth', 'going with the flow' and 'faith in the system' were internal coping mechanisms, which formed the global theme 'maintaining internal control'. All of the women were planning for the birth to be as natural as possible. The desire not to use pain-relief options, however, was described in terms of a fear of the procedure, rather than concerns that it would lead to unnecessary intervention.

Like Fenwick et al's (2005) study, the women expected labour and birth to be achievable without intervention, yet did not favour birthing in a free-standing midwifery-led unit. In the absence of other options, the challenge then is to maintain a 'midwife-led' ethos from within the labour ward. It could be argued that, with effective multidisciplinary working and respect for each other's role, this should be achievable on any labour ward.

In terms of intervention being a possibility, the study findings are similar to Lavender et al's (1999) study with none of the women viewing intervention as negative, though this study is limited as it does not evaluate the women's postnatal views.

The women demonstrated a need to cope with labour independently, yet their 'faith in the system' encouraged dependency: *'They (healthcare professionals) know what is best for me'* (Bren). This illustrates the vulnerability of women during childbirth as highlighted by Bluff and Holloway (1994).

With control being the central tenet in this study, healthcare professionals need to consider their actions and behaviours very carefully to ensure women are supported during labour in a way that minimises unnecessary intervention and allows them to maintain control and integrity.

External control factors

The second global theme, 'external control factors' encompasses the uncertainty of childbirth, the term 'fear of the unknown' featuring highly among the participants. This confirms earlier work by Beaton and Gupton (1990), who comment on the anxiety of being unable to predict the future. Consistent with other studies (Waldenstrom, 2004; Melender and Lauri, 1999; Beaton and Gupton, 1990; Stolte, 1987), pain in childbirth emerged as the single unknown entity causing the most speculation and fear. Other fears were associated with the health of the baby and the risks of perineal trauma, which has also been highlighted in other studies (Melender and Lauri, 1999; Neuhaus et al, 1994; Beaton and Gupton, 1990). While women wanted to maintain some control, the sense of foreboding that women described when thinking ahead to birth revealed the apprehension of childbirth and the interplay of external control factors on their expectations and experience of labour. It could also reveal a need by women not to tempt fate or a way of minimising the disappointment if complications in labour arise.

Most of the women expected their partner to be a source of comfort and support in labour, though some were apprehensive about how well their partner would cope. Unlike Gibbins and Thomson's (2001) study, the women did not identify support from their partner as their main coping mechanisms. The value of a support person in labour has been highlighted by other studies (Lavender et al, 1999; Munn and Galsworthy, 1995; Bluff and Holloway, 1994; Beaton and Gupton, 1990; Stolte, 1987). The five women who attended active birth classes (new to the local area) reported how well they prepared their partners for birth by giving them specific tasks and focusing on childbirth as a partnership. As Chapman (2000) asserts, if the partner feels less anxious so too will the woman and this in turn will increase her ability to cope with labour. The fact that women and partners felt empowered by the classes is encouraging and supports the work of Hallgren et al (1995) in recognising the importance of education for support partners.

Role of the midwife

All the women referred to midwives as the 'specialist' in terms of pregnancy and childbirth. None of the women could describe the role of the midwife intrapartum or the process of care within the hospital: words like 'popping in and out' were used to describe the midwives' presence during labour – this is consistent with Beaton and Gupton's (1990) prospective study. While the terms 'reassurance' and 'support' were used, women were unable to contextualise this further, preferring instead to talk about physical activities such as checking blood pressure. The fact that women underestimated the role of the midwife is also consistent with two retrospective studies by Stolte (1987) and Gibbins and Thompson (2001), where the value of the midwife was only realised postnatally when reflecting on the birth process. The fact that women did not have a clear understanding of the role of the midwife intrapartum did not appear to cause them any anxiety antenatally and is perhaps reflected back in the theme 'faith in the system'. While it would be possible to produce information for women regarding the role of the midwife intrapartum, it would need to be evaluated in terms of usefulness to women. Certainly on admission in labour, it would seem that there needs to be some discussion regarding the process of care and the level of support needed.

Limitations of the study

As with all small scale qualitative work, findings may not always be replicated, but add further dimension and depth to the volume of evidence already published.

In order to ensure this qualitative study is reviewed appropriately, it is necessary to provide an open and honest account of its limitations. In this sort of study, where the researcher plays a very visible role, it could be argued that the women responded positively to the presence of the interviewer. As a midwife conducting interviews with pregnant women, there is a possibility that women will say what they think the professional wants to hear in an attempt to impress or be see in a positive light – they may say one thing, but do another (Fielding, 1994).

The lack of involvement of the sample group to provide feedback must also be viewed as a limitation, although a senior midwifery colleague was enlisted to verify the codes and emerging themes. A total of five participants had been to an active birth workshop, which may account for their positive attitudes towards wanting an intervention-free birth, although the three who did not attend expressed the same views.

Given the fact that the researcher has chosen a qualitative study discussing women's views on childbirth, it is valid to suggest that the researcher has an interest in this area. However, every effort has been made to provide a study that embraces the reflexive element of the research without directly influencing the data. Prior to undertaking this study, local women often expressed concern at birthing in a standalone midwife-led unit. With the medicalisation of childbirth and the often negative media portrayal of birth, the researcher had considered that women may regard intervention as a necessary element of birth, and view childbirth as a process that needed to be overseen by obstetricians. Midwives too often remarked that women today want intervention, especially in relation to epidural analgesia. During data collection, it was easy to suspend these initial feelings as the women interviewed were so positive about their pending birth and the expertise of midwives. While the actual study sample is small, completing this research has enabled the researcher to re-evaluate former beliefs.

Conclusion

The women in this study have demonstrated that they need to maintain control in childbirth. They also want and believe birth can be natural and achieved without intervention. While the women were unaware of the midwives' role intrapartum, they do regard the midwife as a specialist. Reducing intervention rates both locally and nationally is a complex issue, but if women trust the expertise of the midwife intrapartum and want a birth devoid of intervention, surely it is within the grasp of the midwifery profession. The challenge for midwives is to use all the available evidence to work collaboratively with obstetricians and women in promoting normal outcomes in childbirth and maintaining safety, while also respecting the uniqueness of birth for each woman.

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Information for authors

Evidence Based Midwifery is published quarterly and aims to promote the dissemination, implementation and evaluation of midwifery evidence at local, national and international levels. Papers on qualitative research, quantitative research, philosophical research, action research, systematic reviews and meta-analyses of qualitative or quantitative data are welcome. Papers should be sent to: emma.godfrey@redactive.co.uk in MS Word, and receipt will be acknowledged. Suitable papers are subject to double-blinded peer review of academic rigour, quality and relevance. Subject area and/or methodology experts provide structured critical reviews that are forwarded to authors with editorial comments. Expert opinion on matters such as statistical accuracy, professional relevance or legal ramifications may also be sought. Major changes are agreed with authors, but editors reserve the right to make modifications in accordance with house style and demands for space and layout. Authors should refer to further guidance (RCM, 2007; Sinclair and Ratnaike, 2007). Authorship must be attributed fully and fairly, along with funding sources, commercial affiliations and due acknowledgements. Papers that are not original or that have been submitted elsewhere cannot be considered. Authors transfer copyright of their paper to the RCM, effective on acceptance for publication and covering exclusive and unlimited rights to reproduce and distribute it in any form. Papers should be preceded by a structured abstract and key words. Figures and tables must be cited in the text, and authors must obtain approval for and credit reproduction or modification of others' material. Artwork on paper is submitted at the owner's risk and the publisher accepts no liability for loss or damage while in possession of the material. All work referred to in the manuscript should be fully cited using the Harvard system of referencing. All sources must be published or publicly accessible.

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News and resources

DMRS meeting in October

The Doctoral Midwifery Research Society (DMRS), for which EBM is the official journal, is due to hold its next meeting on 3 October at the University of Ulster in Northern Ireland. Guest lecturer Professor Sheila Hunt will be sharing her knowledge on writing successful grant applications, with Dympna Walsh-Gallagher talking about the experiences of women with disabilities facing pregnancy. For further details, please visit: www.doctoralmidwiferysociety.org

Performance review carried out on NMC

The Council for Healthcare Regulatory Excellence (CHRE) has conducted a performance review on the functioning of the NMC as a regulatory body.

It found the NMC to be carrying out its statutory functions, but failing to fulfil these to the standard of performance the public has a right to expect of a regulator. The report identified weaknesses in the NMC's governance and culture, in the conduct of its Council and its ability to protect the interest of the public through the operation of fitness-to-practise processes. It also outlined weakness in its ability to retain the confidence of key stakeholders. Despite this, the report highlighted the strengths of the NMC in its standards and guidance and its registration processes. It also acknowledged the NMC's progress in improving its performance. Full details of CHRE's performance review on the NMC can be found at: www.chre.org.uk

New deputy editor

Redactive Media Group, the publishers of *EBM* on behalf of the RCM have recruited a new deputy editor to co-ordinate the publication on a day-to-day basis. Maura O'Malley can be contacted at: maura.o'malley@redactive.co.uk. Redactive and the RCM would like to welcome Maura to the team.

Call for submissions to EBM

EBM continues to welcome new manuscripts reporting midwifery research to review for publication. To discuss or submit a paper for consideration, please email: emma.godfrey@redactive.co.uk

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