Communication and decision-making in labour: do birth plans make a difference?

Stephanie J Brown, BA (Hons) and Judith Lumley PhD FFPHM

Centre for the Study of Mothers' and Children's Health, School of Public Health, La Trobe University, Carlton, Victoria, Australia

Correspondence
Stephanie Brown
Centre for the Study of Mothers' and Children's Health
School of Public Health, La Trobe University
463 Cardigan Street
Carlton 3053
Victoria
Australia
(E-mail: stephanie@latrobe.edu.au)

Accepted for publication 30 July 1998

Keywords: birth plan, communication, health care evaluation, patient satisfaction

Abstract

Objectives To assess usage of birth plans, and examine differences in social and obstetric characteristics, and intrapartum experiences of women who did and did not use a birth plan.

Design Population-based survey distributed by hospitals and home birth practitioners, 6–7 months post-natally.

Setting and participants Women who gave birth in Victoria, Australia over a 2-week period in September, 1993, excluding those who had a stillbirth or neonatal death.

Main outcome measures Use of a written birth plan; perceived helpfulness, advantages and disadvantages of birth plans; relationship between use of birth plans and overall rating of intrapartum care, and involvement in decision-making.

Results Twenty per cent of women (270/1336) had prepared a written birth plan and discussed it with caregivers. Women who made use of a birth plan were more likely to be satisfied with pain relief (OR = 1.74[1.3–2.3]), but did not differ from women not completing a birth plan in terms of their overall rating of intrapartum care, or involvement in making decisions about their care.

Conclusions The lack of association between use of a written birth plan and variables assessing women's views of intrapartum care suggest there are insufficient grounds for continuing to advocate a policy of encouraging pregnant women to complete written birth plans, unless it is within the context of a well-designed randomized trial able to provide further evidence regarding their effectiveness.

Introduction

Despite the volume of papers written on the subject of communication between health professionals and pregnant women, there have been very few attempts to evaluate interventions specifically designed to facilitate more effective communication during labour and birth.[1] One strategy, which has been recommended by reviews of childbirth services in the United Kingdom and in Australia, is the more widespread adoption of written birth plans recording women's preferences for labour and birth.[2,3] Although widely promoted as a strategy for enhancing the involvement of women and their families in decisions about maternity care, there has been little formal evaluation of birth plans, and no randomized trials have been carried out to assess the effectiveness of birth plans in promoting women's involvement in decision-

making, or the potential for birth plans to contribute to adverse outcomes.

Since birth plans were first promoted and used in the early 1980s, opinions have been divided about their value. Several commentators have noted the potential for birth plans to foster distrust between care providers and pregnant women,[4–8] while others maintain that birth plans can provide a useful vehicle for improving communication prior to and during labour.[9–14] Advocates for birth plans point to the opportunities they afford women and their partners,

> …to gain knowledge about hospital procedures and possible outcomes, and to develop their own ideas in partnership with caregivers.[15]

Kitzinger suggests that birth plans may provide a method of keeping track of women's preferences when multiple caregivers are involved.[16] Others have argued that plans may be a helpful vehicle for documenting and conveying to caregivers the needs and preferences of women from non-English speaking backgrounds,[10,17] and of other specific groups of women such as those with a disability, or those giving birth in an unfamiliar institution a long way from home.[15]

The *Victorian Ministerial Review of Birthing Services* defined a birth plan as,

> a written statement outlining an individual woman's or family's wishes about the birth of their baby.[3]

The Study Group conducting the Review outlined three potential benefits of birth plans. These were:

- improved channels of communication between caregivers and consumers;
- the creation of opportunities for discussion of preferences;
- enhanced participation of women and their families in the process of care.[3]

Guidelines to assist hospitals and caregivers in the development birth plans were provided as an appendix to the Report.

This paper draws on a population-based survey of recent mothers conducted in Victoria, Australia in 1994. The survey provided an opportunity to assess the extent to which birth plans were being used in Victorian hospitals, and to examine differences in the social and obstetric characteristics, and intrapartum experiences of women who did and did not prepare a birth plan recording their wishes for the birth.

Methods

1993 survey of recent mothers

All maternity hospitals in Victoria were asked to facilitate the mailing of questionnaires, 6 to 7 months post-natally, to women who gave birth over a 2-week period in September 1993, excluding those who had a stillbirth or whose baby was known to have died. Ethics approval was granted by 25 individual hospital ethics committees, and all but three of the State's 130 hospitals with maternity beds agreed to participate. The final sample included $>91\%$ of births in the survey period.

Three mailings took place at 2-week intervals, each including a covering letter inviting women to participate, a copy of the questionnaire, a brief explanation of the study in six community languages, and a freepost return envelope. A total of 1366 completed questionnaires were returned. Twenty-four of these were excluded because the baby's birth date fell outside the study period. Five duplicate questionnaires, and a questionnaire returned by a woman who had a stillbirth were also excluded. A further 86 questionnaires were returned having been unable to be delivered at the mailing address. Excluding these questionnaires from the denominator, the response rate to the survey was 62.5% (1336/2138).

The use of a defined 2-week study period enabled comparison of the respondents with the State's Perinatal Data Collection. This showed that the respondents were largely representative in terms of parity, mode of birth and infant birthweight, but were under-representative of women born overseas of non-English speaking backgrounds, single women and women under 25 years. A detailed description of the study sample and methods is given elsewhere.[18]

The questionnaire covered care during pregnancy, labour and birth, and post partum. Data

on socio-demographic characteristics, past reproductive history and events in the current pregnancy, as well as women's views of care were collected. Women were grouped according to which of six major models of care best described the style of antenatal, intrapartum and postnatal care they received (See Appendix 1). The risk status of the pregnancy was ascertained by asking women whether they had experienced any medical conditions or health problems requiring regular medication, special care or extra tests during pregnancy.

Three questions in the postal questionnaire asked specifically about the use of a written birth plan. A preamble to this set of questions read:

> Some women write down their wishes about the birth beforehand. This is sometimes called a birth plan – some hospitals and some doctors have a standard form and/or you may have written down your views yourself to be kept with your notes.

The questions posed were,

> Did you have anything written down in advance about your wishes for the birth? If yes, do you think this was helpful?

and

> In practice, what were the advantages and/or disadvantages of having things written down? The first two of these questions were pre-coded; the last was open-ended with five lines provided for women to write comments.

Elsewhere in the questionnaire women were asked:

> Do you think you were given an active say in making decisions about what happened during your labour and/or the birth?

Six categories of response were provided:

> yes, in all cases; yes, in most cases; at some times and not others; rarely; not at all; not sure.

Women were invited to tick a separate box if they had not wanted to have an active say in decisions.

Analysis

Quantitative data were analysed using SPSS for Windows[19] and Epi Info 6,[20] and involved Chi squared comparisons, odds ratios and logistic regression. Odds ratios were calculated to assess the strength of association between use of a written birth plan and variables assessing women's views and experiences of intrapartum care. Logistic regression was used to investigate the relationship between use of a written birth plan and women's involvement in decision-making during labour. The purpose of developing a logistic regression model was to identify potential confounders which have masked or exaggerated the association between use of a written birth plan and women's involvement in decision-making.

Open-ended questions contained in the 1993 Survey questionnaire were coded by the first author based on a coding schedule developed after reading all the responses.

Results

Use of birth plans

Twenty per cent of women (270/1333) had prepared a written birth plan in pregnancy and discussed it with caregivers. Three women did not complete this question (0.2%) and were excluded in further analyses relating to this topic. Women who completed a birth plan were more likely to be younger, without a partner, to live outside the metropolitan area, to have a lower income, not to have private health insurance, and to be primiparous (Table 1). There were marked differences between models of care: women attending a specialist obstetrician as a private patient were the least likely to use a birth plan and women enrolled for team midwifery care in a birth centre were the most likely to have used one. Models involving general practitioners (private general practitioner care, public general practitioner care, and shared care) were intermediate. The use of written birth plans was much less common among women of non-English speaking backgrounds than among Australian born women.

Women's views of birth plans

Of the 270 women who completed a birth plan, half found it helpful during labour and/or birth (135/270). Fifteen stated it was definitely un-

Table 1 Social and obstetric differences between women who did and did not complete a written birth plan*

	Birth plan		No birth plan		
	No.	(%)	No	(%)	Chi squared *P*-value
Maternal age (years)					
< 25	53	(19.8)	139	(13.2)	$P = 0.003$
25–29	105	(39.2)	355	(33.8)	
30–34	85	(31.7)	421	(40.1)	
≥ 35	25	(9.3)	135	(12.9)	
Marital status					
Married	217	(80.4)	926	(87.6)	
De facto relationship	30	(11.1)	94	(8.9)	
Divorced/separated/widowed	6	(2.2)	18	(1.7)	$P = 0.0003$
Single	17	(6.3)	19	(1.8)	
Residence					
Metropolitan	122	(45.4)	686	(64.8)	
Non-metropolitan	147	(54.6)	373	(35.2)	$P < 0.0001$
Secondary Education					
Completed Year 12	143	(53.2)	543	(51.9)	
Less than Year 12	126	(46.8)	504	(48.1)	$P = 0.7$
Total family income					
< A$30 000 per annum	120	(46.0)	373	(37.1)	$P = 0.009$
≥ A$30 000 per annum	141	(54.0)	632	(62.9)	
Country of birth					
Australia	222	(83.8)	835	(79.8)	
Overseas – English speaking	29	(10.9)	81	(7.7)	$P = 0.002$
Overseas – NESB	14	(5.3)	130	(12.4)	
Health insurance status					
Medicare only	153	(56.9)	469	(44.2)	$P < 0.0001$
Private cover	116	(43.1)	591	(55.8)	
Parity					
Primiparous	132	(49.6)	378	(35.7)	
Multiparous	134	(50.4)	681	(64.3)	$P < 0.0001$
Risk status					
Low risk	217	(80.3)	829	(78.0)	
High risk	53	(19.6)	234	(22.0)	$P = 0.4$
Model of care					
Obstetrician	110	(40.7)	607	(57.3)	$P < 0.0001$
Private GP	28	(10.4)	77	(7.3)	
Public GP	49	(18.1)	137	(12.9)	
Public clinic	30	(11.1)	129	(12.2)	
Shared care	33	(12.2)	90	(8.4)	
Birth centre	20	(7.4)	19	(1.8)	

* Denominators vary because of missing values

helpful (5.6%), 109 (40.3%) said it was neither helpful nor unhelpful, and 11 (4.1%) were unsure. Two-thirds (179/270) thought there had been advantages in having written down their thoughts and wishes for the birth in advance. A third (88/270) described disadvantages, but of these almost half reported both advantages and disadvantages (39/88).

The main advantages of birth plans were perceived to be the opportunity to consider and become acquainted with options available before labour actually began (21%, 56/270), and to inform caregivers of preferences without the need for explanations to take place during labour (27%, 72/270):

> When confronted with decision-making under stress it was easier to make the appropriate choices because we had evaluated all the options prior to labour.
>
> I didn't actually refer to it, but I found it useful just thinking about what I wanted and didn't want beforehand.
>
> The advantage of writing things down was that it made me take the time to consider all the options before completing the birth plan. I certainly didn't feel compelled to stick to the plan.
>
> Everyone involved in the birth knew what I wanted and there was no reason to ask any questions, when it was the last thing I wanted to do at the time.
>
> The midwives could look at them and know exactly what you wanted, then pass it on to the doctor. When you're in labour you don't have time to tell them. They know what you want from the time you arrive in labour ward.

Small numbers of women said that preparing a birth plan had been helpful in other ways, for example as a vehicle for discussing preferences with their partner (7%, 19/270), or with caregivers prior to labour (3%, 7/270); and as a means of mentally preparing themselves for the birth (9%, 23/270):

> Having discussed and completed a birth plan in consultation with my midwife, I was more informed about the options available to me. I also felt more confident about the birth, as both my partner and my midwife were now aware of my wishes.
>
> Things we liked weren't always possible, and it gave us the opportunity to discuss the event with the doctor who took our plans seriously. We knew what to expect.
>
> Preparing a birth plan made me think beforehand about choices and risks. Discussed with midwife which gave me insight into how things were handled in the hospital.
>
> It was helpful that it put my mind at rest in that I knew what I wanted, but my birth was so quick I didn't have time for some of the things on my plan. I had planned to have the birthing room, but when I got there, there was another lady coming in who wanted the birthing room. I said she could have it… I would have had the baby in the corridor.

The main disadvantages perceived were: instances where caregivers did not read, were dismissive, or did not follow the wishes outlined (8%, 22/270); and the limited capacity of birth plans to reflect the full range of possibilities, especially for primiparous women (10%, 27/270):

> Maybe it was just for peace of mind, because although the doctor and hospital took a copy, some things I wanted did not eventuate – the hospital had its own policy.
>
> I don't think there was any necessity for it because I tried to talk to the hospital about my birth plan and they said to give it to the midwife at delivery, and they didn't really look at it either, or ask me about it.
>
> I was induced, was not particularly prepared for this, plan didn't reflect other possibilities.
>
> In hospital, I never used the birth plan, nor did they ask for it. Being my first baby, I really didn't know what to expect.

Comparing the views and experiences of women who did and did not prepare a birth plan

Women who did and did not complete a birth plan were compared in terms of seven variables describing their views and experiences of intrapartum care, and mode of birth (Table 2). Women who wrote birth plans were more likely to be very happy about what was done to relieve pain (104/254, 40.9% vs. 258/905, 28.5%, OR = 1.74[1.3–2.3]), and to report always having an active say in decisions about their care (122/508, 46% vs. 143/764, 38.3%, OR = 1.37 [1.0–1.8]). Significantly more women using a birth plan rated doctors present during labour and birth as giving only some, little or no help (57/226, 25.2% vs. 144/932, 15.3%, OR = 1.85 [1.3–2.7]). There were no statistically significant differences between the groups in terms of the perceived helpfulness of midwives, access to information, or in the overall rating of intrapartum care.

Significantly fewer women who used a birth plan had an operative vaginal delivery. Excluding women who had an elective Caesarean section from the denominator, 9.6% (25/259) of women who used a birth plan had a birth assisted with forceps or vacuum extraction compared with 14.6% (139/949) of women who did not write a birth plan (OR = 0.59 [0.4–0.9]). Women using a birth plan were slightly less likely to have undergone emergency

Table 2 Views of care in labour and birth comparing women who did and did not complete a written birth plan*

	Birth plan		No birth plan	
	No	(%)	No.	%
Helpfulness of doctors†				
Very helpful	127	(56.2)	579	(61.5)
Fairly helpful	42	(18.6)	219	(23.2)
Some/little/no help	57	(25.2)	144	(15.3)
Helpfulness of midwives				
Very helpful	210	(78.4)	801	(76.9)
Fairly helpful	40	(14.9)	184	(17.7)
Some/little/no help	18	(6.7)	56	(5.4)
Wanted more information				
No	198	(74.2)	795	(76.1)
Yes	69	(25.8)	250	(23.9)
Satisfaction with pain relief ‡				
Very happy	104	(40.9)	258	(28.5)
Fairly happy	97	(38.2)	427	(47.2)
Mixed	44	(17.3)	177	(19.5)
Unhappy	4	(1.6)	28	(3.1)
Very unhappy	5	(2.0)	15	(1.7)
Given an active say in decisions about what happened in labour				
Yes, all cases	122	(45.4)	386	(36.8)
Yes, most cases	96	(35.7)	406	(38.7)
Sometimes/rarely/not at all	45	(16.7)	200	(19.0)
Uncertain	2	(0.7)	15	(1.4)
Did not want an active say	4	(1.5)	43	(4.1)
Overall rating of care in labour and birth				
Very good	190	(70.6)	754	(71.5)
Good	56	(20.8)	224	(21.2)
Mixed	23	(2.2)	61	(5.8)
Poor	0	(0.0)	12	(1.1)
Very poor	0	(0.0)	4	(0.3)
Mode of birth				
Vaginal	215	(79.6)	711	(66.9)
Forceps/vacuum extraction	25	(9.3)	139	(13.1)
Emergency Caesarean	19	(7.0)	99	(9.3)
Elective Caesarean	11	(5.1)	113	(10.6)

* Denominators vary because of missing values
†Variable excludes women not attended by a doctor during labour or birth
‡Variable includes only women who experienced labour

Caesarean section compared with women not using a birth plan (19/259, 7.3% vs. 99/949, 10.4%), but the difference was not statistically significant.

In order to obtain a more precise estimate of the association between preparation of a written birth plan and having an active say in making decisions, six variables were entered into a logistic regression model with women's role in decision-making as the outcome variable (did not always have an active say vs. had an active say in all cases). Six variables were included in the model (Table 3): use of a birth plan (no/yes), parity, risk status in pregnancy, maternal age, mode of birth and model of care. The latter three variables were included because each was associated with the outcome variable and use of a birth plan. The only other social or obstetric factors associated at a univariable level with both having an active say, and having prepared

Table 3 Unadjusted and adjusted odds ratios for associations of obstetric and social factors with having an active say in decision-making in all cases (n = 1253)*

	Unadjusted odds ratio (95% CI)	*P*-value	Adjusted odds ratio (95% CI)	*P*-value
Parity				
Primiparous	1.00	0.2	1.00	0.5
Multiparous	1.15 (0.9–1.5)		0.90 (0.7–1.2)	
Risk status				
Low risk	1.00	0.04	1.00	0.09
High risk	0.75 (0.6–0.7)		0.78 (0.6–1.0)	
Written birth plan				
No	1.00	0.03	1.00	0.1
Yes	1.36 (1.0–1.8)		1.27 (0.95–1.7)	
Maternal age				
< 25 years	1.00	0.003	1.00	0.002
25–29 years	1.24 (0.9–1.8)		1.19 (0.8–1.7)	
30–34 years	1.30 (0.9–1.9)		1.28 (0.9–1.9)	
≥ 35 years	2.22 (1.4–3.5)		2.33 (1.4–3.8)	
Mode of birth				
Vaginal	1.00	<0.0001	1.00	0.0001
Forceps or vacuum extraction	0.45 (0.3–0.7)		0.43 (0.3–0.7)	
Emergency C. section	0.52 (0.3–0.8)		0.53 (0.3–0.8)	
Elective C. section	0.63 (0.4–1.0)		0.68 (0.4–1.1)	
Model of care				
Private obstetrician	1.00	<0.0001	1.00	
Private GP	1.36 (0.9–2.1)		1.23 (0.8–1.9)	0.0001
Public GP	0.96 (0.7–1.3)		0.89 (0.6–1.3)	
Public clinic	0.60 (0.4–0.9)		0.61 (0.4–0.9)	
Shared care	0.53 (0.3–0.8)		0.52 (0.3–0.8)	
Birth centre	3.47 (3.0–4.1)		3.01 (1.5–6.3)	

* Excludes women who did not want an active say in decision-making (n = 47) and women with missing values for one or more variables

a written birth plan, were health insurance status and a score calculated for obstetric intervention. These variables were not included in the model because they were highly correlated with model of care and mode of birth, respectively. Parity and risk status were included on the basis of an *a priori* assumption about their biological and social significance in relation to labour and birth. Sixty-one respondents were excluded from the analysis because they had indicated they did not want an active say in decision-making ($n = 47$), or because of missing data for this item ($n = 14$). Twenty-two women were excluded because of missing data for other variables included in the model. There were no significant differences in the degree of involvement in decision-making ($\chi^2 = 0.12$, 1 df, $P = 0.7$) or use of birth plans (Fisher exact = 0.8) between respondents included in the model ($n = 1253$) and women excluded from the analysis because of missing values. After adjusting for other factors, use of a written birth plan was not significantly associated with the degree of involvement in decision-making.

Discussion

Methodological issues

The current study was undertaken against the policy background of the recommendation made in support of birth plans by the *Victorian Ministerial Review of Birthing Services* (1990).[3] No data are available for the number of Victorian maternity hospitals that had implemented a policy of promoting the use of birth plans by the time of the survey. Nor is data available on the proportion of women in our sample who devised their own birth

plan format, although it is likely that these women would have been a minority of the 270 women who completed a written birth plan.

The fact that one in five women reported using a birth plan and discussing it with caregivers suggests a moderate level of support and application of the *Birthing Review* recommendations. In a recent UK survey, a slightly higher proportion of women (35%) stated that their preferences had been recorded in casenotes, or in a birth plan.[21] However, a study by Jones *et al.*, reporting on the use of birth plans at one UK hospital in 1997, indicates that less than 4% of women at low risk of complications made use of birth plans.[8]

Variations between hospitals with regard to the degree to which birth plans are accepted and promoted make it difficult to generalize from the findings of studies conducted in individual hospitals. A study conducted in Huddersfield,[9] and another in New South Wales[10] reported generally positive feedback about birth plans implemented in these two settings, but both involved birth plans devised and implemented by hospital staff. At Huddersfield, the option of completing a written birth plan was discussed with women at a home visit with a community midwife in the third trimester of pregnancy. Women who wished to use a birth plan were encouraged to bring the form back at the next antenatal clinic visit so that it could be placed in their case notes, and studied by the midwife caring for them in labour. The South-west Sydney Area Health Service introduced birth plans in two district hospitals in 1993. Women were invited to complete a pre-formatted plan covering chosen support people to be present in labour, the need for an interpreter, options during labour and birth, students watching the birth, preferences in relation to infant feeding and care of the baby, early discharge, special customs or cultural practices, and any additional preferences. The plan was developed in consultation with hospital staff and designed to accord with hospital policies and practices. Copies, which were available in English as well as six community languages, were given to women in public antenatal clinics at about 28 weeks' gestation. The majority of women who gave birth at the two participating hospitals during the study period completed and returned a birth plan form.

Three studies focusing on obstetric outcomes have been reported.[8,22,23] A study covering a 6-month period at Heatherwood Hospital of women considered to be at low antenatal risk, found that women completing a written birth plan (42/1172) were more likely to experience a range of interventions in labour, including use of forceps for the birth.[8] The authors conjecture that the hostile attitudes of midwifery and obstetric staff to women presenting with a written birth plan adversely affects communication in labour, leading to worse birth outcomes. Two earlier retrospective studies report conflicting findings. Pickrell and Marshall reported a fourfold increase in the risk of operative delivery among women using birth plans.[22] Smolenic and colleagues found no association with operative delivery in a sample of 62 women who had used a birth plan and 62 who had not.[23] Each of these studies involved relatively small numbers of women who had either developed their own birth plan, or made use of a form developed without input from the hospitals where they had their baby.

The strengths of the current study are that it was population-based, that recruitment to the study was by an anonymous postal questionnaire 6 to 7 months after the birth, and that the sample was large enough for meaningful statistical comparisons between subgroups. Data collection 6 months after the birth is preferable to designing studies to be conducted on postnatal wards because of the potential for a 'halo' effect associated with the birth,[24,25] and the documented tendency for more positive feedback to be given when patients perceive their responses may be made known to caregivers.[26]

The major limitation of the study is the underrepresentation of women of non-English speaking backgrounds, younger women and single women, although subgroups were large enough for meaningful statistical comparisons.[18] As with all observational studies, inferences that may be drawn are limited by the representativeness of the sample and the difficulties involved in assessing the role of known and unknown confounders.

Who uses birth plans?

Like attendance at antenatal classes, use of birth plans is more common among primiparae.[27,28] However, in several other respects women in the study who reported using a birth plan differed from those most likely to attend childbirth classes.[27] Those using birth plans were more likely to be younger, not to have a partner, to have a low income, and to be in public models of care. This suggests that, in the Victorian setting, birth plans may be promoted by care providers as an alternative vehicle for discussing procedures and options in labour with women who may not otherwise have ready access to this information. The limited use of birth plans by women of non-English speaking backgrounds suggests that birth plans are not being promoted among this group of women.

Do birth plans enhance women's participation in decision-making?

Women's evaluations of birth plans were mixed: only half regarding them as definitely helpful, although two thirds thought there were advantages in having thought about and written down their preferences in advance. Women who made use of birth plans, however, were not, in general, more likely to have had positive experiences of care. Nor were they markedly more likely to have had negative experiences. The only statistically significant difference indicating a possible negative effect of birth plans identified was the finding that women using birth plans were more likely to rate doctors caring for them in labour and birth as being of only some, little or no help. From the comments written on the survey forms, it is apparent that some women perceived that caregivers did react negatively to the concept of women recording their preferences in a birth plan, but this seems to have been a minority experience.

Conclusions

The Survey results suggest that in Victorian hospitals in 1993, birth plans did not contribute to significant differences in women's experiences of intrapartum care. A randomized trial of the policy of encouraging women to complete birth plans is required in order to provide stronger evidence regarding the potential advantages and disadvantages of birth plans. In the absence of evidence from randomized trials, the finding in the current study of no apparent association between use of written birth plans and a range of outcomes variables assessing women's views of intrapartum care may be regarded as reassuring in relation to potential negative effects. The finding that women using birth plans were significantly more likely to rate medical practitioners as being of limited help warrants further investigation.

The main benefit of birth plans identified by women who took part in the study was the opportunity afforded to consider options and discuss these with caregivers during pregnancy. On the negative side, some women reported that care did not reflect their plan; sometimes this was because unanticipated complications intervened, sometimes it was because caregivers did not read or respect the preferences women had recorded in their birth plan.

Based on these mixed views of the experience of using birth plans, and the apparent lack of association in the data between using a birth plan and having an active say in decision-making in labour, we believe that there are insufficient grounds for continuing to advocate a policy of encouraging pregnant women to complete written birth plans unless within the context of a well-designed randomized trial able to provide further evidence regarding their effectiveness.

It is clear from the existing literature on birth plans that context and setting play a critical role. The degree to which hospital staff are involved in developing and implementing birth plans, and staff attitudes to birth plans devised by women themselves or adapted from other settings, are likely to have powerful effects. How birth plans affect practice, and how well they achieve the purpose of promoting communication between women and caregivers cannot be separated from pre-existing hospital policies and cultures, the extent of support for evidence-based practice, degree of continuity of care, and commitment to involving women and their partners in decision-

making. How useful it will be to undertake further evaluation of birth plans – including evaluation within randomized trials – is, therefore, a question about which we would welcome further debate. It certainly should not occur in isolation from broader consideration of hospital policy and practice in relation to intrapartum care, and in particular the extent to which other strategies for promoting communication are being pursued.

Acknowledgements

We are grateful to the Victorian women who gave generously of their time to complete the survey and to those who later took part in follow-up interviews, to the Victorian Health Promotion Foundation which funded the study, the hospitals and home birth practitioners who distributed the questionnaires, Fiona Bruinsma for assistance with preparing the data for analysis, the Victorian Perinatal Data Collection Unit for providing data on obstetric and social characteristics of women who gave birth in the study period, and to members of the project reference group for their helpful advice throughout and for assistance with piloting.

Appendix 1 Models of care in Victoria

Private obstetrician care

Women choosing this model (approximately half of all confinements) attend an obstetrician's private consulting rooms for antenatal check-ups, and are cared for in labour by the same obstetrician.

General practitioner care

Women may attend a general practitioner obstetrician as a private patient (Private GP care) receiving care in pregnancy, intrapartum and postnatally from the same practitioner. Public GP care is mainly offered in rural areas; women attend a GP or group practice in pregnancy, and receive standard public hospital care for labour and delivery, with local GPs providing an on-call service for public patients. Approximately 20% of women receive GP care, as either a private or public patient.

Public clinic care

Pregnancy care is provided through a public hospital out-patient clinic. Women attend the same hospital for labour and postnatal hospital stay. Generally, different sets of caregivers are responsible for antenatal, intrapartum and postpartum care. In labour, multiparous women are generally cared for by midwives, while primiparous women are attended by medical staff in addition to midwives. This model accounts for ≈10–15% of births.

Shared care

After an initial visit with a consultant obstetrician at a public hospital clinic, the remaining pregnancy care is provided by a local GP or midwife/local physician team in a community health centre, with the exception of two or more visits to the hospital at the 28th and 36th week of pregnancy. In labour, women are cared for by hospital staff (midwives, senior doctor and specialist obstetrician if necessary), returning to their local practitioner for care following discharge. We estimate that this model accounted for $< 2\%$ of births in 1989, expanding to ≈15% by 1993.

Birth centre care

In this study birth centre care refers to team midwifery care within a separate section of a hospital where midwives provide antenatal, intrapartum and postpartum care unless complications arise necessitating transfer to obstetrician led care. An obstetrician is seen at the first antenatal appointment, with subsequent visits booked at one hospital only if complications arise, and at the other two hospitals offering this model at pre-specified times late in pregnancy e.g. 36 weeks, post term. We estimate this model accounted for $< 2\%$ of births in 1993.

In general only women at low risk of complications are accepted for shared care or birth centre care, although the exclusion criteria vary across centres and tend to be less restrictive for

shared care than for birth centre care. For example, a woman who had previously undergone a Ceasarean would be excluded from birth centre care, but not from all shared care programmes.

The group of women with a midwife as their primary caregiver for the birth is a heterogenous category comprising primarily women giving birth in birth centres receiving team midwifery care, multiparous women receiving public clinic or shared care, and women whose private obstetrician was unable to attend the birth. The smaller group of women who stated that a doctor was not present during labour or the birth is a subset of this category.

References

1 *The Cochrane Library*. (database on disk and CDROM). The Cochrane Collaboration; Issue 2. Oxford. Update Software, 1998.

2 Expert Maternity Group. *Changing Childbirth: the Report of the Expert Maternity Group*. London: Her Majesty's Stationery Office (Cumberlege Report), 1993.

3 Health Department Victoria. *Having a Baby in Victoria. Final Report of the Ministerial Review of Birthing Services in Victoria*. Melbourne: Health Department Victoria, 1990.

4 Klein M. Contracting for trust in family practice obstetrics. *Canadian Family Physician*, 1983; **29:** 2225–2227.

5 Reynolds J. Remedy for birth plan headache [letter]. *Canadian Medical Association Journal*, 1987; **137:** 786.

6 Inch S. Birth plans and protocols. *Journal of the Royal Society of Medicine*, 1988; **81:** 120–122.

7 Richards MPM. The trouble with 'choice' in childbirth (commentary). *Birth*, 1982; **9:** 253–260.

8 Jones MH, Barik S, Mangune HH, Jones P, Gregory SJ, Spring JE. Do birth plans adversely affect the outcome of labour? *British Journal of Midwifery*, 1998; **6:** 38–41.

9 Ekeocha CEO, Jackson P. The 'birth plan' experience. *British Journal of Obstetrics and Gynaecology*, 1985; **92:** 97–101.

10 Moore M, Hopper U. Do birth plans empower women? Evaluation of a hospital birth plan. *Birth*, 1995; **22:** 29–36.

11 Carty E, Tier T. Birth planning. A reality based script for building confidence. *Journal of Nurse Midwifery*, 1989; **34:** 111–114.

12 Bennett A, Etherington W, Hewson D. *Childbirth Choices*. Ringwood: Penguin, 1993.

13 Stoppard M. *Conception, Pregnancy and Birth*. Ringwood: Penguin, 1993.

14 Eisenberg A, Murkoff HE, Hathaway BSN. *What to Expect When You're Expecting*. Sydney: Angus and Robertson, 1996.

15 Bastian H. The evolution of birth plans. In: *Meeting our Needs: a quick guide to improving communication in care around pregnancy and childbirth*. Maternity Alliance: Sydney, 1995.

16 Kitzinger S. *Freedom and Choice in Childbirth: Making Pregnancy Decisions and Birth Plans*. Penguin: London, 1988.

17 Liamputtong Rice P. *My Forty Days. A Cross-cultural Resource Book for Health Professionals in Birthing Services*. The Vietnamese Antenatal/Postnatal Support Project: Melbourne, 1993.

18 Brown S, Lumley J. The 1993 Survey of Recent Mothers: issues in design, analysis and influencing policy. *International Journal of Quality in Health Care*, 1997; **9:** 265–277.

19 *SPSS for Windows*, Version 6.1, Chicago, USA. SPSS Inc, 1994.

20 Dean AG, Dean JA, Coulumbier D, Brendel KA, Smith DC, Burton AH *et al*. Epi Info Version 6, A word processing, database and statistics program for public health on IBM compatible microcomputers. Atlanta, Georgia: Centers for Disease Control and Prevention, 1995.

21 Garcia J, Redshaw M, Fitzsimons B, Keene J. *First Class Delivery. A National Survey of Women's Views*. London: Audit Commission, 1998.

22 Pickrell MD, Marshall T. A retrospective cohort study of women presenting with a birth plan. *Abstracts: RCOG Silver Jubilee British Congress of Obstetrics and Gynaecology*. London: Royal College of Obstetricians and Gynaecologists:, 1989; 512.

23 Smoleniec JS, James DK. Does having a birth plan affect operative delivery rate? *Journal of Obstetrics and Gynaecology*, 1992; **12:** 394–397.

24 Erb L, Hill G, Houston D. A survey of parents' attitudes towards their Caesarean births in Manitoba hospitals. *Birth*, 1983; **10:** 85–89.

25 Bennett A. The birth of a first child: do women's reports change over time? *Birth*, 1985; **12:** 153–158.

26 Bramadat I, Dreidger M. Satisfaction with childbirth: theories and methods of measurement. *Birth*, 1993; **20:** 22–29.

27 Lumley J, Brown S. Attenders and non-attenders at childbirth education classes in Australia: How do they and their births differ? *Birth*, 1993; **20:** 123–129.

28 Redman S, Oak S, Booth P, Jensen J, Saxton A. Evaluation of an antenatal education programme: characteristics of attenders, changes in knowledge and satisfaction of participants. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 1991; **31:** 310–316.