Surrogacy: The experience of commissioning couples

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BACKGROUND: Findings are presented of a study of families with a child created through a surrogacy arrangement. This paper focuses on the commissioning couples' reports of their experiences. METHODS: A total of 42 couples with a 1-year-old child born through surrogacy were assessed using a standardized semi-structured interview. Data were obtained on motivations for surrogacy, details about the surrogate mother, experience of surrogacy during pregnancy and after birth and disclosure of the surrogacy to friends and family. RESULTS: Couples had considered surrogacy only after a long period of infertility or when it was the only option available. Couples retrospectively recalled their levels of anxiety throughout the pregnancy as low, and relationships between the couple and the surrogate mother were found to be generally good. This was the case regardless of whether or not the couple had known the surrogate mother prior to the arrangement. After the birth of the child, positive relations continued with the large majority of couples maintaining some level of contact with the surrogate mother. All couples had told family and friends about the surrogacy and were planning to tell the child. CONCLUSIONS: Commissioning couples generally perceived the surrogacy arrangement as a positive experience.

Key words: commissioning couples/surrogacy

Introduction

Surrogacy is defined as "the practice whereby one woman carries a pregnancy for another person(s)... as the result of an agreement prior to conception that the child should be handed over to that person after birth'' (Brazier et al., 1998). In the traditional method, known as 'partial', 'straight' or 'genetic' surrogacy, the surrogate mother and the commissioning father are the genetic parents of the child and conception is through artificial insemination. However, IVF techniques mean that is now possible to implant an embryo created by the gametes of the commissioning couple in the surrogate mother. In this situation, known as 'full', 'host' or 'gestational' surrogacy, the role of the surrogate mother is purely gestational and the child is genetically related to both of the intended parents. It is also possible that a donor egg may be used, in which case the genetic mother, the gestational mother and the intended mother are three separate people. These unique aspects of surrogacy have led to it becoming the most controversial of all the assisted reproductive techniques in recent years.

The relationship between the commissioning couple and the surrogate mother is crucial to the success of the arrangement. The surrogate mother may be either a relative or friend of the commissioning couple, or may have been unknown to them prior to the surrogacy arrangement. Some argue that surrogacy with a previously unknown surrogate mother is potentially problematic (Warnock, 2002), since to some extent all of those involved are depending on trust between strangers. In other forms of assisted reproduction involving an unknown third

party such as donor insemination or egg donation, the donor generally remains anonymous. However, in surrogacy cases, a bond must be established between the previously unknown surrogate mother and the commissioning couple, a relationship described by the founder of one UK surrogacy agency as a 'forced friendship' (Brazier *et al.*, 1998). On the other hand, surrogacy with a known surrogate mother presents the possibility that a relative or friend will be pressured into being a surrogate mother, and that this will complicate the dynamics within the family to a damaging extent. Indeed, in Israel it is illegal for the surrogate mother to be a relative of the commissioning couple (Benshushan and Schenker, 1997).

Whether the surrogate mother is known or unknown, potentially difficult issues arise associated with the involvement of the commissioning couple in the pregnancy and the birth, the handing over of the child to the commissioning couple and, importantly, the continuing contact after the birth between the surrogate mother and the commissioning couple. Professional advice about this contact is equivocal with the British Medical Association stating that "... while some people report benefits arising from maintaining contact between the parties after the birth, this will not suit everybody" (British Medical Association, 1996).

To some extent, the continuation of contact between the family and the surrogate mother will depend on whether the commissioning couple intend to disclose the facts of the surrogacy arrangement to the child. The disclosure or nondisclosure of the use of assisted conception is an area of much debate. Studies of families created by gamete donation have found that the large majority of parents do not intend to disclose the method of conception to the child (Brewaeys, 1996; 2002), although there is some evidence of a tendency towards greater openness in recent years (S.Golombok *et al.*, unpublished data). van den Akker (2000) studied 29 women at various stages of surrogacy arrangements and found that all but one of them (97%) said they would disclose the surrogacy to their child, suggesting that surrogacy families are more open than families created through other methods of assisted reproduction. However, more than half of this sample had not yet completed the surrogacy arrangement successfully.

It has been suggested that secrecy about the conception method will damage family relationships with a consequent negative impact on the child's psychological development (Baran and Pannor, 1993; Daniels and Taylor, 1993; McWhinnie, 2001)and there is some evidence that difficulties may arise when individuals discover their donor conception in adulthood (Turner and Coyle, 2000). Also, evidence from research on adoptive families shows that children are more likely to develop emotional and behavioural problems when their parents do not communicate openly about the adoption (Howe and Feast, 2000). Insofar as the surrogacy situation resembles adoption, it could be argued that children are likely to fare better when the surrogacy is disclosed to them from a young age.

As yet, there is little empirical research on the consequences of surrogacy or the experience of going through a surrogacy arrangement. In terms of child development, a review by Serafini (2001) found no verbal or motor impairment in children born after IVF (full) surrogacy at age 2. A small number of studies have been published that interviewed commissioning couples about the experience of surrogacy. From a sample of 20 commissioning parents, Blyth (1995) reported that in all cases it had been agreed that the commissioning mother would be present at the birth of the child, all parents believed that the child should be told about the surrogacy arrangement and all intended to maintain contact in some form with the surrogate mother. However, the sample included only eight sets of couples with children, and the age of the children at interview was not reported. In addition, all the participants were volunteers recruited through the UK surrogacy agency Childlessness Overcome Through Surrogacy (COTS) so cannot be considered an entirely representative sample, as not all commissioning couples have contact with COTS. Other studies in the UK (van den Akker, 2000) and the USA (Ragoné, 1994) have also used samples that include commissioning couples who have not yet become parents.

The aim of the present study was to obtain systematic information from a representative sample of surrogacy families in the UK with a child aged ~1 year old. This paper focuses on commissioning couples' reports of their experience of the surrogacy arrangement. In addition to reporting on the sample as a whole, comparisons have been made between those couples who knew the surrogate mother previously and those who did not, and between those arrangements involving full surrogacy and those involving partial surrogacy. Findings relating to the quality of parent-child relationships in surrogacy families are reported elsewhere (Golombok *et al.*, 2003).

Materials and methods

Participants

Families with a child born through surrogacy were recruited through the General Register Office of the United Kingdom Office for National Statistics (ONS). In the UK, a record is made of all families created through a surrogacy arrangement when the commissioning couple become the legal parents of the child. In the present investigation, all parents of children aged ~1-year-old who obtained legal parenthood between March 2000 and March 2002 were asked to participate in the study. A total of 58 surrogacy families were contacted. Thirty families agreed to take part, representing 60% of those who responded to the request by ONS. A total of 40% (n = 20) of those who responded declined to participate in the study, and no response was obtained by a further eight families. As commissioning couples who had not yet become the child's legal parents would not have been identified by ONS, all 34 parents on the register of the United Kingdom surrogacy agency COTS with a child in the same age range were also asked to take part. Twenty-six of these families agreed to participate, representing a response rate of 76%. As 14 families who responded positively to the invitation by one organization also responded positively to the other, the total number of surrogacy families recruited to the study was 42.

The mean age of the 42 mothers studied was 35 years, with the mean age of the fathers being 40 years. There were almost equal numbers of girls and boys in the group (22 boys and 20 girls) and the mean age of the children was 10.5 months. A total of 60% of the families had only one child, 31% had two children and 9% had three children. The socioeconomic status of the families was measured by the occupation of the parent with the highest-ranking position according to a modified version of the Registrar General's classification (OPCS and Employment Department Group, 1991) ranging from 1 (professional/managerial) to 4 (partly skilled or unskilled). Seventy-six per cent of families were in the professional/managerial bracket, with the remaining families equally split between the skilled non-manual and skilled manual categories.

Measures

Researchers trained in the study techniques visited the families at home. Data were obtained from the mother and the father separately by tape-recorded interview. Interviews were conducted with 100% of mothers and 69% of fathers.

The semi-structured interview focused on the couple's recall of five areas that related to their past and current experience of going through a surrogacy arrangement and each variable was rated according to strict standardized coding criteria.

Motivations for surrogacy

Information was obtained from mothers on their infertility history; i.e. how long they had been trying for a child, what diagnosis they had been given for their infertility and what first caused them to consider surrogacy. Both mothers and fathers were asked why they had opted for surrogacy rather than other fertility treatments, and whether the decision to pursue surrogacy had been reached jointly by the couple. The financial burden put on the couple by the surrogacy arrangement was also assessed.

F.MacCallum et al.

Details about the surrogate mother

Mothers were asked for details about the surrogate mother, including whether she had been known to the couple prior to the arrangement. If the surrogate mother was known, information was obtained about; (i) who first suggested she act as a surrogate mother, and (ii) what role she would have in the child's life. If the surrogate mother was previously unknown, information was obtained about; (i) how the couple first contacted her, (ii) how long they had known her before going ahead with the surrogacy, and (iii) what role she would have in the child's life. The type of surrogacy that had been used (i.e. full or partial) was also ascertained.

Experience of surrogacy during pregnancy

Parents were questioned on their retrospective recall of feelings about the pregnancy, including any anxieties and concerns, and responses were rated according to one of four categories: 'happy', 'mild apprehension', 'mixed feelings' and 'high anxiety'. This was assessed separately for recollections of the beginning and the end of the pregnancy. Both mothers and fathers were also asked about the quality of their relationship with the surrogate mother at the beginning and the end of the pregnancy. Relationship quality was rated according to one of three categories; 'harmonious', 'dissatisfaction/coldness', 'major conflict/hostility'. In addition, the frequency of contact between the couple and the surrogate mother at the beginning and the end of the pregnancy was established from the mother's interview. Frequency of contact was coded into four categories; 'more than once a week', 'once a week to once a month', 'once a month to once every 3 months' or 'not at all'.

Experience of surrogacy after birth

Data were obtained about the handing over of the child to the commissioning parents, including when this took place, who decided when it should take place and whether either the surrogate mother or the couple had doubts at this point. Mothers were asked about the frequency of contact since the birth between the surrogate mother and the couple, and about the frequency with which the surrogate mother had seen the child. Frequency was coded as before, with the addition of an extra category for those couples who had seen the surrogate mother 'once or twice' only since the birth, which may be the case if they had only met in court for the granting of the parental order. Both mothers and fathers were questioned about their current relationship with the surrogate mother (rated in the same way as relationship during pregnancy) and also on their feelings about the surrogate mother's involvement with child, which was rated as 'positive', 'negative' or 'ambivalent'. Where there had been no contact between the couple and the surrogate mother, reasons for this lack of contact were ascertained. Couples were also asked whether they would recommend surrogacy to other couples experiencing fertility problems.

Openness about surrogacy

Mothers were asked about the extent of their disclosure to family and friends about the surrogacy arrangement, and their reasons for disclosure or non-disclosure. Reasons for disclosure were rated by coding the following variables as 'yes' or 'no', according to the mother's responses: (i) wanted to share experience; (ii) no reason not to tell; (iii) to avoid disclosure from others; and (iv) no choice but to tell.

Both mothers and fathers were questioned about whether or not they intended to tell the child about the surrogacy and, if they intended to do so, at what age they planned to start this disclosure and what their reasons were for disclosure. As for disclosure to family, the following variables were coded as 'yes' or 'no': (i) child has right to know; (ii) to avoid disclosure from others; and (iii) no reason not to tell.

All statistical comparisons between known and unknown surrogate mother arrangements and between full and partial surrogacy arrangements were made using χ^2 analyses.

Results

Motivations for surrogacy

The mean length of time for which the couple had been trying to have a child was 7.5 years. A total of 91% of women (n = 38) reported that the infertility had been diagnosed as a female problem, one couple had both male and female infertility problems and for three couples the reason for the infertility remained unexplained (see Table I). The most common reason for opting for surrogacy was repeated IVF failures, reported by 43% (19) of women, with the second most common reason being that the woman had no uterus (38%, n = 16) as a result either of a congenital abnormality or of an emergency hysterectomy. Seven per cent (three) of the women had been told that pregnancy would be life threatening, a further 7% had suffered habitual miscarriages and 5% (one) had other problems, i.e. a prolapsed uterus.

Table Ia. Motivations for surrogacy

	Mothers			
	%	n		
Infertility diagnosis				
Female problem	91	38		
Male and female problem	2	1		
Unexplained	7	3		
Why surrogacy?				
No uterus	38	16		
Habitual miscarriage	7	3		
Pregnancy is life-threatening	7	3		
Failed IVF treatments	43	19		
Other	5	1		
Consider surrogacy				
Media coverage	41	17		
Suggested by clinician	21	9		
Suggested by family/friend	29	12		
Other	9	4		
Financial burden				
None	66	27		
Some	27	11		
Moderate	7	3		

Table Ib. Decision about surrogacy

Decision about surrogacy	Mot	hers			Fathers			
	Initially		At treatment		Initially		At treatment	
	%	п	%	n	%	п	%	n
Male decision	0	0	0	0	3	1	0	0
More male than female	9	4	0	0	10	3	7	2
Joint decision	48	20	81	34	59	17	90	26
More female than male	41	17	17	7	28	8	3	1
Female decision	2	1	2	1	0	0	0	0

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	%	n
Surrogate mother		
Not known	69	29
Friend	14	6
Sister/sister-in-law	14	6
Other relative	3	1
Known surrogate: who suggested?		
Commissioning mother	8	1
Surrogate mother	77	10
Commissioning father	0	0
Other	15	2
Known surrogate: future role		
Appropriate to relationship status	77	10
Play 'special role'	23	3
Unknown surrogate: future role		
No involvement	10	3
Contact with parents, not child	14	4
Contact with child	66	19
Play 'special role'	10	3
Type of surrogacy arrangement		
Full	38	16
Partial	62	26

For 41% (17) of couples, the media coverage of surrogacy, such as TV documentaries or magazine articles, had first caused them to consider surrogacy as an option. A further 29% (12) of couples had first considered surrogacy after a suggestion by a friend or family member and 21% (nine) had been recommended surrogacy as an option by infertility specialists, with 9% (four) citing other sources.

In the main, mothers considered the decision to try surrogacy as either a joint decision between the couple (48%, n = 20) or as being more their decision than their husband's (43%, n = 18). Only 9% of mothers felt that their husband had at first been keener to attempt surrogacy than they had been. Data from the fathers followed a similar pattern, with 59% (n = 17) feeling it was a decision made jointly and 28% (n = 8) feeling that their wife had been the instigator. The remaining 13% (n = 4) of fathers reported that they had initially been keener than their wife had been. By the time the couples started treatment, the large majority (81% of mothers and 90% of fathers) felt that both partners were equally keen on surrogacy.

When asked about the financial burden caused by the treatment, two-thirds of couples (66%, n = 27) felt there had been no strain, while 27% (n = 11) reported some strain, requiring a general cutting down on expenses in order to afford the treatment. Seven per cent of couples (n = 3) reported there had been a definite financial burden, requiring measures such as taking out loans or borrowing from family, but these couples all used full surrogacy which involves potentially costly IVF cycles.

Details about the surrogate mother

Of the 42 couples, 69% (n = 29) had not known the surrogate mother prior to the arrangement (see Table II). Of the remaining 31% (n = 13) of surrogate mothers, 17% (n = 7) were family members of the commissioning mother and 14% (n = 6) were friends of the couple. For the known surrogate mothers, the suggestion that she act as a surrogate mother for the couple had come from the surrogate mother herself in 77% (n = 10) of cases, from other people in 15% (n = 2) of cases and from the commissioning mother in just one case (8%). Regarding the future role of the surrogate mother, in 77% (n = 10) of known surrogacy arrangements, the couple and the surrogate mother agreed that she would play no special role beyond that appropriate to her relationship status with the child e.g. as aunt or family friend. For the remaining 23% (n = 3) of the arrangements, it was agreed that the surrogate mother would play a special role, e.g. as the child's godmother.

For unknown surrogate mothers, in all except one case, the surrogate mother and the couple had met through the surrogacy agency, COTS. Couples and unknown surrogate mothers met six times on average, and knew each other for an average of 17 weeks, before going ahead with the first attempt to conceive. Examining the two types of surrogacy separately, couples in full surrogacy arrangements had known the surrogate mother for 21 weeks on average whilst those in partial surrogacy arrangements had known her for the slightly shorter time of 16 weeks on average, but the range for both groups was the same at 2–52 weeks. Two-thirds (66%, n = 19) of the couples had agreed with the surrogate mother that she would have occasional contact with the child, and 10% (n = 3) wanted her to play a special role in the child's life, for example by attending birthday parties. A total of 14% (n = 4) of couples had agreed that they would keep in contact with the surrogate mother but that she would not see the child, and 10% (n = 3) had decided from the beginning to have no further involvement with the surrogate mother after the birth.

A total of 62% (n = 26) of the arrangements involved partial surrogacy and 38% (n = 16) of arrangements involved full surrogacy.

Experience of surrogacy during pregnancy

Table III shows parental recall of concerns for two stages of the pregnancy retrospectively. At the start of the pregnancy, 72% (n = 30) of mothers and 81% (n = 22) of fathers were categorised either as 'happy', indicating no concerns, or as having 'mild apprehension', where the parent was predominantly happy or excited but had some slight concerns, for example, about how the pregnancy would progress. A higher proportion of mothers than fathers (26% versus 15%) recalled themselves as having 'mixed feelings' but their orientation towards the pregnancy was still positive, and very few parents were rated as having 'high anxiety' where anxiety was the predominant feeling about the pregnancy. By the end of the pregnancy, the general trend for both mothers and fathers was a move towards more positive feelings. Concerns about pregnancy were compared between those with known and unknown surrogate mothers and between those with full surrogacy and partial surrogacy. No significant differences were found for either comparison

In total, 98% (n = 41) of mothers and 90% (n = 25) of fathers recalled that they had a 'harmonious' relationship with the surrogate mother at the beginning of the pregnancy. When asked to remember their feelings at the end of the pregnancy, 95% (n = 40) of mothers and 86% (n = 24) of fathers rated their relationships with the surrogate mothers as 'harmonious'.

Table III. Experience of surrogacy during pregnancy									
	Mothers at start of pregnancy		Fathers at start of pregnancy		Mothers at end of pregnancy		Fathers at end of pregnancy		
	%	п	%	п	%	п	%	п	
Parental concerns									
Нарру	31	13	48	13	39	16	48	13	
Mild apprehension	41	17	33	9	39	16	40	11	
Mixed feelings	26	11	15	4	20	8	5	2	
High anxiety		1	4	1	2	1	4	1	
Relationship with surrogate mother									
Harmonious	98	41	90	25	95	40	86	24	
Dissatisfaction/coldness	2	1	10	3	5	2	14	4	
Major conflict/hostility		0	0	0	0	0	0	0	
Frequency see surrogate mother									
More than once a week	26	11	19	8	31	13	22	9	
Once a week to once a month	53	22	36	15	48	20	33	14	
Once a month to once every 3 months	19	8	38	16	21	9	38	16	
Not at all	2	1	7	3	0	0	7	3	

Table IV. Comparisons of frequency of contact between known and unknown surrogate mother arrangements

		Frequency	χ^2	Р				
			Once week- once month	Once month – once every 3 months	1 or 2 times		-	
Mothers: at start of pregnancy	Known Unknown	10 1	2 20	1 7	N/A N/A	0 1	25.14	<0.005
Fathers: at start of pregnancy	Known Unknown	8 0	3 12	2 14	N/A N/A	0 3	22.58	< 0.005
Mothers: at end of pregnancy	Known Unknown	11 2	1 19	1 8	N/A N/A	0 0	25.48	< 0.005
Fathers: at end of pregnancy	Known Unknown	8 1	3 11	2 14	N/A N/A	0 3	18.62	< 0.005
Mothers: since birth	Known Unknown	8 0	4 2	0 13	0 11	1 3	32.25	< 0.005
Fathers: since birth	Known Unknown	5 0	4 1	2 13	1 13	1 2	22.68	< 0.005

Those that were not 'harmonious' were rated as having some 'dissatisfaction or coldness' in the relationship, for example, some minor conflicts or a lack or communication, but no relationship was rated as being characterized by 'major conflict or hostility'. There was no significant difference in the quality of the relationships between parents and known surrogate mothers compared to those of parents and unknown surrogate mothers. Nor was there a significant difference between the quality of relationships in full surrogacy cases and those in partial surrogacy cases.

Throughout the pregnancy, the large majority of mothers (79%, n = 33) saw the surrogate mother at least once a month. Fathers had less contact with the surrogate mother, with only 55% (n = 23) seeing her at least once a month. Three fathers (7%) did not see the surrogate mother at all during the pregnancy. Frequency of contact did not change from the start

to the end of the pregnancy for mothers or fathers. Comparing known surrogate mother cases to unknown (see Table IV), parents who knew the surrogate mother had more frequent contact with her throughout the pregnancy than those who did not (e.g. at start of pregnancy, mothers: $\chi^2 = 25.48$, P < 0.005; fathers: $\chi^2 = 18.62$, P < 0.005). There was no significant difference in the frequency of contact according to the type of surrogacy, i.e. full or partial.

Experience of surrogacy after birth

At the child's birth, 81% of commissioning mothers (n = 34) were present. The other 19% (n = 4) were either unable to attend or chose not to. In contrast, only 31% (n = 13) of commissioning fathers were present, with 40% (n = 17) absent through choice or circumstances. In the remaining 29% (n = 12) of cases, the surrogate mother requested that the commis-

	Mothers		Fathers		Children	
	%	n	%	п	%	n
Present at birth						
Chose not to/unable	19	4	40	17		
Not wanted by surrogate	0	0	29	12		
Present	81	34	31	13		
Frequency see surrogate mother						
Once a week	19	8	12	5	19	8
Once/week-once/month	15	6	12	5	14	6
Once/month-once every 3 months	31	13	36	15	31	13
Once or twice	26	11	33	14	12	5
Not at all	9	4	7	3	24	10
Relationship with surrogate mother						
Harmonious	91	38	89	25		
Dissatisfaction/coldness	9	4	11	3		
Major conflict/hostility	0	0	0	0		
Feelings about surrogate's involvement with child						
Positive	92	35	90	26		
Ambivalent	5	2	10	3		
Concerned	3	1	0	0		
Would recommend surrogacy						
No	2	1	0	0		
Uncertain	5	2	3	1		
Yes	93	39	97	28		

Table V. Experience of surrogacy after birth

sioning father not be present (see Table V). On average the child was handed over to the couple by the surrogate mother within 1 day of the birth. There was only one case of a surrogate mother having slight doubts about handing the child over, with all other surrogate mothers showing no problems. Nearly all of the commissioning mothers had no difficulty accepting the baby, although one mother (involved in a partial surrogacy arrangement) did report having minor doubts initially.

A total of 91% of commissioning mothers (n = 38) and 93% (n = 39) of commissioning fathers had seen the surrogate mother at least once since the birth, although the contact between the surrogate mother and the child was slightly lower at 76% (n = 32). Sixty-four per cent of mothers and children (n= 27), and 60% (n = 25) of fathers, had continued to see the surrogate mother every couple of months. In respect to the current relationship with the surrogate mother, 91% (*n* = 38) of mothers and 89% (n = 25) of fathers reported it still to be harmonious and there were no instances or reports of major conflict. In cases where there had been contact between the child and the surrogate mother, 92% (n = 35) of mothers and 90% (n = 26) of fathers felt positive about the surrogate mother's involvement in the child's life. Two mothers and three fathers were ambivalent towards this involvement, and one mother said that she was concerned about it.

Where there was no contact between the family and the surrogate mother, this was most likely to be either by mutual agreement or because the surrogate mother did not want contact. There were no reported cases where the primary decision to stop contact was that of the parents.

Couples who knew the surrogate mother had seen her more often since the birth than couples who had not known the surrogate mother previously (mothers: $\chi^2 = 32.25$, P < 0.005;

fathers: $\chi^2 = 22.68$, P < 0.005, see Table IV), but there were no significant differences between the two groups in the quality of the current relationship between the parents and the surrogate mother. Nor were there any differences in the frequency of contact, or in the quality of the current relationship with the surrogate mother, when couples in full surrogacy arrangements were compared to those in partial surrogacy arrangements.

When asked if they would definitely recommend surrogacy to others, 93% of mothers (n = 29) and 97% (n = 28) of fathers said that they would, with only one mother stating that she would not recommend it.

Openness about surrogacy

All of the commissioning couples had told both maternal and paternal grandparents about the surrogacy arrangement, although one couple had not done so until after the child's birth. When asked for their reasons for disclosure, many mothers gave more than one response resulting in a total number of responses of greater than 100% (see Table VI). The most common reasons given for telling families were: (i) 53% (n = 22) of couples wanted to share the experience with the family, (ii) 48% (n = 20) felt there was no choice but to tell, either because it would be obvious that the mother was not pregnant or because the family was aware that it was impossible for the mother to become pregnant, and (iii) 36% (n = 15) saw no reason not to tell. The majority of the couples' families had reacted either positively or neutrally to the news, with only 7% (n = 3) of couples reporting any negative reaction from family. There were no differences in the reactions of family depending on whether the surrogate mother was known or not, or on whether the surrogacy was full or partial. All of the couples had also told at least one friend.

	Mothers			
	%	n		
Reasons for telling family				
Wanted to share	53	22		
No choice but to tell	48	20		
No reason not to	36	15		
To avoid disclosure	19	8		
Family's reaction				
Negative	7	3		
Neutral/mixed	29	12		
Positive	64	27		
	Mothers		Fathers	
	%	n	%	n
Reasons for telling child				
Child has right to know	69	29	69	20
To avoid disclosure	64	27	48	14
No reason not to	41	17	45	13

All (100%) of both mothers and fathers reported that they planned to tell the child about the surrogacy in the future. The mean age at which mothers planned to start telling was 3 years old, whereas fathers planned to tell at the slightly older mean age of 5 years. The most common reason for planning to tell the child was the view that the child has a right to know the truth. This reason was given by 69% of mothers (n = 29) and fathers (n = 20). A further reason reported by 64% (n = 27) of mothers and 48% (n = 14) of fathers was to prevent the disclosure coming from anyone else, and 41% (n = 17) of mothers and 45% (n = 13) of fathers felt that there was simply no reason not to tell the child.

Discussion

In spite of the concerns that have been commonly voiced about surrogacy, the commissioning parents had not generally found the experience of surrogacy to be problematic. However, surrogacy is by no means seen as an easy option and early fears that couples would use surrogacy 'for convenience' (HFEA, 1993) seem unfounded. The parents in this study had embarked on surrogacy either after a long period of infertility and, in many cases, repeated failed IVF treatments, or as the only way of having a child genetically related to the commissioning father when the commissioning mother had no uterus.

Media reports of surrogacy have often focused on situations where the relationship between the surrogate mother and the couple has broken down, resulting in conflict and, in extreme cases, the surrogate mother applying for custody of the child, for example the 'baby M' case (New Jersey Supreme Court, 1987). However, in this study, relationships were found to be generally good, with little sign of conflict during the pregnancy. A few couples reported having felt some dissatisfaction with the relationship in the past, for example feeling that the surrogate mother was over-exerting herself whilst pregnant, but there was no instance of this causing serious friction between them. Commissioning mothers seemed to have been more involved than did fathers with the surrogate mother during the pregnancy in that they saw her more frequently, often accompanying her to all medical appointments, and in all cases the surrogate mother was happy for the commissioning mother to be present at the birth. This is in line with Ragoné's (1994) assertion that, in the families she studied, the role of the father during pregnancy was de-emphasized while the commissioning mother formed a strong bond with the surrogate mother and was very involved in the pregnancy. It is possible that sharing the pregnancy in this way can help the commissioning mother to feel connected to the unborn child and, in the case of partial surrogacy, to come to terms with the fact that she is not the genetic mother of the child.

It has been suggested that contact with the surrogate mother after the birth might be detrimental to the family, but this does not seem to be confirmed by the findings. Nearly two-thirds of the commissioning mothers had regular contact with the surrogate mother and the large majority of parents, even where there was not regular contact, felt that their relationship was still good. There is little evidence in support of the theory that commissioning mothers may feel insecure about the surrogate mother's involvement with the child, since nearly all of the commissioning mothers were positive about this and felt that their child would benefit from it.

It should be noted that this report is based on the commissioning couples' reports only, and it is possible that they were attempting to present the situation in the best possible light. This is particularly true in light of the fact that, for some variables, couples were reporting on their memories of experiences taking place over a year ago, and may have chosen not to recall the negative aspects. The surrogate mother's perception of the arrangement may be very different, or the surrogate mother may have encountered problems that she did not share with the commissioning couple. For example, in Blyth's (1994) interviews with 19 surrogate mothers, five of the women studied expressed sorrow and distress about parting with the child, which the commissioning parents may not have been aware of. Therefore, in the current study the surrogate mothers themselves were interviewed where possible and data was obtained on the experience of 34 surrogate mothers (V.Jadva *et al.*, unpublished data).

All of the couples intended to disclose the facts about the surrogacy arrangement to their child at a fairly young age. This follows the pattern seen in previous studies of surrogacy (Blyth, 1995; van den Akker, 2000). In this respect, surrogacy families seem to be behaving similarly to adoptive families, where current practice is for parents to be open with the child about the adoption from as soon as the child can understand, rather than to families created through other forms of assisted reproduction, where parents tend not to be open with their child about the nature of their conception. Surrogacy families are also like adoptive families in their readiness to disclose the child's origins to their family and friends. This may be due to the fact that, as for adoptive families, the absence of a pregnancy means that the commissioning couple cannot pretend that they have had the child through natural conception. Thus, the wish expressed by some families created through gamete donation to present themselves as a 'normal' family is not an option in the case of surrogacy. Parents did not seem to see surrogacy as something to keep secret, as shown by the large numbers who reported that there was no reason not to tell the child or others.

Interestingly, there were very few differences found between the arrangements where the surrogate mother was unknown to the couple and those where she was a friend or relative. Despite couples and unknown surrogate mothers having to trust each other when they were still relative strangers, their relationship was no less likely to be harmonious than that of couples and known surrogate mothers. The fact that commissioning couples waited on average ~4 months before starting treatment suggests that both the surrogate mother and the commissioning couple were carefully considering the situation rather than hurrying into an alliance whilst still unsure Attempts to conceive began slightly sooner after meeting in partial surrogacy arrangements than in full surrogacy arrangements, possibly for practical reasons, but there was still an average of 16 weeks between the first meeting and the first insemination attempt. In situations where the surrogate mother was a relative or friend, there was little evidence of the surrogate mother being coerced by the couple, since in over three-quarters of cases, the suggestion had come from the surrogate mother herself.

In terms of the type of surrogacy used, there were no significant differences for any of the aspects of surrogacy studied between full and partial surrogacy arrangements. This suggests that the presence or absence of a genetic link between the commissioning mother and the child does not affect her experience of surrogacy or her feelings about the surrogate mother. This result is in line with other types of assisted reproductive technology involving gamete donation where the absence of a genetic link between the mother and the child does not appear to affect her feelings about motherhood (Golombok *et al.*, 1999). Similarly, adoptive mothers of children adopted in

infancy have positive attachments towards their infants (Singer *et al.*, 1985).

Warnock (2002) described surrogacy as "an extremely risky enterprise and liable to end in tears". The findings of this study provide no evidence to support this claim. In fact, despite the potentially difficult nature of surrogacy, commissioning couples generally perceived the surrogacy arrangement as a positive experience and one that they would recommend to other people. However, it must be remembered that the children in these families were still in infancy so it is not yet known what the experiences and feelings of commissioning couples will be as their children grow older and develop the capacity to understand the circumstances of their birth. Nor is it known how the relationship between the commissioning couple and the surrogate mother will sustain and develop over time. This study represents the first stage of a longitudinal investigation in which families will be followed up to try to address these questions. It is only through such studies that the impact of surrogacy on families can be properly understood.

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F.MacCallum et al.

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