

**- CAESAREAN BIRTH -**  
**Conflict in Maternity**  
**Services**

*A Work in Two Volumes:*

*Volume I - The History of Caesarean Section*

*Volume II - The Experience of Caesarean Section*

**By Helen Churchill**

*A thesis submitted in partial fulfilment of the requirements of*

**The Middlesex University**

*for the degree of Doctor of Philosophy.*

**February 1994**

**MIDDLESEX UNIVERSITY**

## ACKNOWLEDGEMENTS

I am indebted to Dr. Colin Francome, Director of Studies, Supervisor and friend, without whose enthusiasm and inspiration this work would not have been accomplished. Also to Professor Wendy Savage for her guidance and professional support and instruction.

I acknowledge and appreciate the financial support of my employers: Crewe and Alsager Faculty of the Manchester Metropolitan University and thank Dr. Gaye Heathcote, Head of Department, for her faith in my abilities.

Thanks and gratitude are extended to the 300 women who took part in the study, giving their time and taking the trouble to fill in the questionnaire whilst they were still in hospital and probably not feeling at their best. Thanks also to the women who gave their permission for me to visit them at home in order to interview them, and kindly shared their stories, emotions and reactions which enhanced this study.

I extend my warmest gratitude to my family for their continued support and encouragement, emotionally and practically. To Leah, for graciously accepting the help and care of others when I could not fulfil my maternal role because of this work. To Barbara, for being my friend, counsellor, housekeeper, childminder, research assistant, proof-reader and much more. To my parents, especially my mother, Alice, for her love, faith and pride in my success. To my sister, Julie, for proof-reading and criticising constructively. To my sister, Samantha, for returning from Greece like a gift from heaven to be childminder and cheer-leader in the final stages of this project.

Finally, I thank my work colleagues who have encouraged me and listened patiently to my anxieties and worries. And my friends who have supported me over the years and always been ready to celebrate the passing of each milestone.

## DEDICATION

I dedicate this work to my caesarean child Leah, now eight years old.

## DECLARATION

I declare that the work presented in this study is my original work undertaken for the purpose of this thesis. Where the work of other authors has been included, it has been referenced accordingly.

Some of the work produced for this study, namely the History section and the results of the survey of women's experiences of caesarean birth, have been published in a book co-authored by Dr. Colin Francome, Professor Wendy Savage, Helen Lewison and myself entitled 'Caesarean Birth in Britain' and published by Middlesex University Press in September 1993. Dr Francome, as editor of the book, carried out some work on the history of caesarean section. Where I have included in the thesis information uncovered by Dr. Francome, I have referenced it to him.

A survey of Consultant's opinions on caesarean birth was conducted and the results published in the book. I took part in the initial stages of this survey, that is, the compilation of the sample and the collation of results. However, due to work commitments, I did not participate in analysis of the results or authorship of the report of the study. The results of the Consultants' survey are pertinent to the results of my research into women's experiences of caesarean birth. I have therefore included the results of the Consultants' study where appropriate in my thesis and referenced this work to Dr. Francome.

## CONTENTS

	Page No.
List of Abbreviations	i
A Note on Spelling	i
Abstract	ii
Introduction	iii
<b><u>VOLUME I THE HISTORY OF CAESAREAN SECTION</u></b>	<b>1</b>
<b>CHAPTER ONE: CAESAREANS IN PRE-INDUSTRIAL TIMES</b>	<b>2</b>
Caesarean Section: Myth and Folklore	2
Caesarean Section in Pre-Industrial Times	4
Caesareans in the Sixteenth and Seventeenth Centuries	5
The Debate: To Section or Not to Section?	6
The Role of the Church - Part I	8
<b>CHAPTER TWO: CAESAREANS IN THE EIGHTEENTH CENTURY</b>	<b>11</b>
The Debate Continued	13
The Success Rate Rises	15
The Caesarean Controversy	17
<b>CHAPTER THREE: CAESAREANS IN THE NINETEENTH CENTURY</b>	<b>20</b>
French Optimism	20
British Conservatism	21
Maternal Mortality	24
Infant Mortality	28
A Royal Catastrophy	29
The Debate Over Caesareans in Britain and France	29
The Debate Begins in Britain	30
British Pro-Caesareanists	33
The Rest of the World?	34
<b>CHAPTER FOUR: ALTERNATIVES TO THE CAESAREAN SECTION</b>	<b>36</b>
Caesarean versus Symphyseotomy	36
Caesarean versus Craniotomy	38
Caesarean versus Forceps	41
Caesarean versus Induction	42
Caesarean versus Pelvitomia Nova	43
<b>CHAPTER FIVE: SELF-INFLICTED CAESAREANS</b>	<b>44</b>
'Sisters Were Doing it for Themselves!'	44
<b>CHAPTER SIX: DEVELOPMENT OF THE OPERATIVE TECHNIQUE</b>	<b>47</b>
The Procedure for Caesareans	48
The 'Porro' Operation	49
The 'Sanger' Method	51
The Lower-Segment Operation	52
Further Developments in the Operative Technique	54
Better Results	55
Medical Indications for Caesarean Section	56

	Page No.
<b>CHAPTER SEVEN: CAESAREANS IN THE TWENTIETH CENTURY</b>	59
Once a Caesarean, Always a Caesarean?	59
Maternal Mortality	60
Rising Caesarean Rates	61
Indications for Caesareans	62
The Anti-Caesarean Backlash	64
Caesarean Sections: Good Use or Abuse?	65
Too Many Caesareans?	66
A New Mood of Caution	68
The Role of the Church - Part II	69
New Age of 'The Child'	71
<b>BIBLIOGRAPHY AND REFERENCES - VOLUME I</b>	73

### VOLUME II THE EXPERIENCE OF CAESAREAN SECTION

<b>CHAPTER EIGHT: THE MEDICALISATION OF CHILDBIRTH</b>	77
Intervention in Childbirth	77
The Medicalisation of Childbirth	78
<b>CHAPTER NINE: CONFLICT IN MATERNITY SERVICES</b>	81
Conflict Between Lay and Professional Views on Pregnancy and Labour	81
Success in Childbirth	82
Satisfaction with Childbirth	83
Knowledge about Childbirth	84
Power	87
The Right to Information	88
Abuse of Power	89
Giving the Wrong Information	90
Withholding Information	91
Whose Role is it to Inform Women?	92
Continuity of Care	93
Informed Consent	94
<b>CHAPTER TEN: CAESAREAN BIRTH TODAY</b>	96
Caesarean Section Rates	96
Regional Variations	96
Socio-Economic Factors	97
Caesarean Rates and Perinatal/Neonatal Outcomes	98
Have Caesarean Rates Stabilised?	100
International Comparison of Caesarean Section Rates	101
Caesarean Section in the Developing World	104
<b>CHAPTER ELEVEN: INDICATIONS FOR CAESAREAN SECTION</b>	105
Medical Indications	105
Cephalopelvic Disproportion	105
Dystocia	105
Foetal Distress	106
Repeat Caesarean	107
Breech Presentation	108
Placenta Praevia	108
Multiple Births	108

	Page No.
Other Maternal and Foetal Considerations	108
<b>Non-Medical Variables Affecting Caesarean Section Rates</b>	109
Consultants: Preference and Prestige	109
Declining Birth Rate	110
Technological Management of Labour	110
Anxiety and Fear of Litigation	112
Age of Mother as a 'High Risk' Factor	114
Repeat Caesareans and Vaginal Birth After Caesarean	115
Changes in Diagnostic Practice and Procedures	119
Electronic Foetal Monitoring	119
Finance	120
Medical Convenience	121
Staffing	122
Gender of the Physician	123
The Cost of Caesareans	123
<b>CHAPTER TWELVE: THE EFFECTS OF CAESAREAN SECTION</b>	125
The Effects of Caesarean Section on the Mother	125
Emergency Versus Elective Caesareans	125
Type of Anaesthetic	126
'Missing Pieces'	128
Having a Partner/Friend Present for the Birth	129
Hospital/Doctor Policy	130
Are Partners a Nuisance in the Operating Theatre?	130
Psychological Effects	131
Disappointment, Guilt and Depression	131
Long-Term Psychological Effects	133
Inconclusive Evidence on Effects	134
Familiarity Breeds Content?	135
Self-Help Groups	136
Physiological Effects	137
Morbidity	137
Long-Term Health Effects	138
Maternal Mortality	138
<b>Effects of Caesarean Birth on the Baby</b>	143
Physiological Effects	143
Effects of Anaesthesia and Analgesics	144
Special/Intensive Care	144
Neonatal Mortality	144
Long-Term Effects (Psychological and Developmental)	144
<b>Effects of Caesarean Birth on the Mother-Child Relationship</b>	146
Bonding	146
Long-Term Effects	147
Breastfeeding	148
Reducing the Negative Effects of Caesarean Birth	150
<b>CHAPTER THIRTEEN: WOMEN'S EXPERIENCE OF CAESAREAN SECTION</b>	154
Theory of Current Research	154
Hypotheses and Research Questions	156
Methods	156
The Sampling Procedure	156
The Questionnaire	157
The Response Rate	157
The Interviews	158

	Page No.
The Sample	158
Age	159
Stage of Pregnancy when Caesareans Performed	161
<b>RESULTS</b>	163
<b>The Operation</b>	163
Reasons for Caesarean Section	163
Overall Reasons	163
Repeat Caesareans	164
Size of Pelvis	164
Prolonged Labour	165
Foetal Distress	167
Breech Presentation	168
Reasons for Elective Caesareans	168
Reasons for Emergency Caesareans	169
Women Requesting Caesarean Section	170
Type of Anaesthesia	173
Support During Birth	174
Information Given to Women	175
Information Given Before the Operation	175
Information About Treatment	176
Information About the Baby's Condition	176
Information Regarding Subsequent Births	177
Women's Understanding at the Time of Birth	178
The Timing of the Operation	179
<b>The Babies</b>	179
Intensive Care	181
Incubators	182
<b>Women's Post-Operative Experiences</b>	183
Do Women Who Have Caesareans Suffer?	183
Pain Expected by Women	184
Other Post-Operative Feelings	185
How Soon After Birth the Mothers Saw Their Babies	186
Caesarean Sections and Breastfeeding	188
Length of stay in Hospital	189
 <b>CHAPTER FOURTEEN: DISCUSSION</b>	 190
Do Women Suffer?	190
Women Do Suffer	191
Not Being Able to Give Birth Naturally	192
Lengthy Recovery Period	193
Emergency Operations and General Anaesthesia	195
The Unexpected Caesarean Birth	196
Participation in the Birth	198
Missing Out on the First Moments After the Birth	199
Separation of Mother and Baby After Birth	200
Bonding	202
Breastfeeding	203
Having a Partner/Birth Companion Present	204
Expectations and Preparation for Abdominal Delivery	209
Conflict in Maternity Services - Revisited	212
 <b>CHAPTER FIFTEEN: CONCLUSIONS AND RECOMMENDATIONS</b>	 218
More Selective Use of Caesarean Section	218
Less Use of Emergency Caesareans	223

	Page No.
The Use of Regional Anaesthesia	226
Keeping Women Fully Informed at all Stages of Treatment	229
Summary of Recommendations	236
 <b>BIBLIOGRAPHY AND REFERENCES - VOLUME II</b>	 237
 <b>APPENDICES</b>	
 <b>GLOSSARY OF TERMS</b>	



## INDEX OF TABLES

	Page No.
 <u>Volume I</u>	
Table 1.1:	Some International Rates of Maternal Survival in the Nineteenth Century 26
Table 1.2:	Maternal and Infant Mortality in the Mid 1800s 28
Table 1.3:	Indications for Caesarean Section (early twentieth century) 57
 <u>Volume II</u>	
Table 2.1:	Maternal Deaths Associated With Caesarean Section 139
Table 2.2:	The Sample 158
Table 2.3:	Age of Women 159
Table 2.4:	No. of Weeks Pregnant When Babies Born 161
Table 2.5:	Reasons for All Caesarean Sections 163
Table 2.6:	Reasons for Elective Caesareans 168
Table 2.7:	Reasons for Emergency Caesareans 169
Table 2.8:	Women Requesting Caesarean Section 170
Table 2.9:	Type of Anaesthesia 173
Table 2.10:	Partners' Presence During Birth 174
Table 2.11:	Were Women Adequately Informed About Their Condition? 175
Table 2.12:	Whether Women Felt the Operation was done at the Right Time 179
Table 2.13:	Babies' Weight at Birth 180
Table 2.14:	Number of Babies Taken into Intensive Care 181
Table 2.15:	Number of Babies Placed in Incubators 182
Table 2.16:	Whether Women Having Caesareans Feel That They Suffer 183
Table 2.17:	Women's Experience of Pain Compared to Their Expectations 184
Table 2.18:	Previous Birth Experiences and Expectations of Pain 185
Table 2.19:	Post-Operative Feelings 185
Table 2.20:	Whether Mothers Saw Their Babies Immediately After the Birth 186
Table 2.21:	Women's Feelings at Not Seeing Their Babies Immediately 187
Table 2.22:	How Long Babies Kept in Intensive Care and/or Incubators A4
Table 2.23:	Whether Women Wanted to Breastfeed Their Babies A5

## INDEX OF FIGURES

Figure 1:	Some International Rates of Caesarean Section 1970 to 1992 102
Figure 2:	Spiral of Intervention 111
Figure 3:	Age of Women Having Caesareans 160
Figure 4:	Number of Weeks Pregnant When Caesareans Performed 162
Figure 5:	Weight of Babies at Birth 181

## INDEX OF APPENDICES

	Page No.
Appendix 1: Covering Letter to Women	A1
Appendix 2: Questionnaire	A2
Appendix 3: Table 2.22: How Long Babies Kept in Intensive Care and/or Incubators	A4
Appendix 4: Table 2.23: Whether Women wanted to Breastfeed Their Babies	A5
Appendix 5: Quotes From Women About Caesarean Birth	A6
WOMEN'S ADVICE TO OTHER MOTHERS	A6
WOMEN'S ADVICE TO HOSPITAL STAFF	A6
THE TIMING OF THE OPERATION	A7
INFORMATION THAT WOMEN WOULD HAVE LIKED ABOUT THEIR BABIES	A7
WOMEN'S COMMENTS ABOUT THE ATTITUDE OF HOSPITAL STAFF	A8
WHY WOMEN DID NOT HAVE A FRIEND/PARTNER PRESENT FOR THE BIRTH	A9
BIENG PREPARED FOR CAESAREAN BIRTH	A10
ELECTIVE VERSUS EMERGENCY CAESAREANS	A10
WOMEN'S COMMENTS ON THE TYPE OF ANAESTHESIA	A11
COMMENTS ABOUT THE PAIN OF THE OPERATION	A14
COMMENTS ABOUT THE LENGTHY RECOVERY PERIOD	A15
WANTING A NATURAL BIRTH	A15
EFFECTS OF CAESAREAN BIRTH ON BONDING	A16
WHY WOMEN FELT THAT THEY HAD SUFFERED	A16
POSITIVE ASPECTS OF CAESAREAN BIRTH	A18

## LIST OF ABBREVIATIONS

DH	Department of Health ( <i>formerly DHSS</i> )
DHSS	Department of Health and Social Security
EFM	Electronic Foetal Monitoring
GP	General Practitioner
NHS	National Health Service
NIH	National Institutes of Health ( <i>An American Organisation</i> ).
VBAC	Vaginal Birth After Caesarean
WHO	World Health Organisation

## A NOTE ON SPELLING

Many of the key words used in this study have both an English and an American spelling. I have used the English spelling except in cases where I have included a quotation or title from an American source. The main examples are listed below:

<u>English</u>	<u>American</u>
Caesarean	Cesarean
Foetus	Fetus
Labour	Labor
Centre	Center

# ABSTRACT

HELEN CHURCHILL

## CAESAREAN BIRTH: Conflict in Maternity Services

This study investigates the history of caesarean section and women's experience of the operation today.

There has been no systematic collection of historical data on caesarean section since 1944. This study now constitutes the most comprehensive compilation of the history of the operation to date. It illustrates the development of the medical ethos concerning women as patients and provides the background to the next phase of research: the experience of caesarean section.

Previous research on caesarean section has exhaustively analysed the indications for the operation, reasons for the increasing rate and women's perceptions of abdominal delivery. This study differs in eliciting responses from women on a range of issues relating to caesarean birth in order to assess the quality of information given to women in hospital regarding the necessity for caesarean operations and analyse the effects of abdominal birth on women.

Women's experiences were examined in a sample of 300 women who had delivered by caesarean section. Significant differences were found in reactions between women who had emergency operations and those whose caesareans were elective. The emergency caesarean women suffered more in all negative measures including increased feelings of pain and depression. Negative sequelae was found to relate to the unexpected nature of emergency operations and the use of general anaesthesia.

Subjectively women report that they do not suffer as a result of caesarean birth, yet objectively it is clear that they do. This anomaly is attributed to the unequal relationship between women and doctors. Women feel grateful for the treatment offered by the doctors and therefore do not express dissatisfaction with their care.

Recommendations are made suggesting practical ways in which maternity services, in respect of caesarean birth, can be improved.

## INTRODUCTION

The history of caesarean section is the history of men's achievements (and lack of achievements) with women's bodies.

I have researched the origins of the caesarean operation for two reasons. First, because there has been no systematic collection of historical data on the operation since Young published his work almost 50 years ago. The study presented here is now the most comprehensive compilation of the history of caesarean section to date.

The second reason for this work is to illustrate the attitudes of the medical profession and the development of the medical ethos about women as patients/subjects, to provide the background to the next phase of the research: Volume II 'The Experience of Caesarean Section'.

### VOLUME I: THE HISTORY OF CAESAREAN SECTION

Volume I provides a detailed account of the history of the caesarean operation, charting its development from the earliest times and examining the diverse indications that have been identified as necessitating the performing of the operation. The volume highlights the fact that interventions in childbirth, particularly the caesarean section, have always been contentious, it is the reasoning behind the debates that have changed over time.

Chapter one examines some theories on the origin of the term 'caesarean section' and looks at references to the operation in myth and folklore. The early history of abdominal delivery is covered here, dating back to 3000 B.C. An account of caesarean section during the sixteenth and seventeenth centuries introduces the debate amongst the medical fraternity over the relative benefits and disadvantages of performing the operation. During pre-industrial times the Church had an influence on the decision-making of most aspects of life including pregnancy and childbirth. Thus, the role of the Church in relation to the caesarean operation is introduced in this chapter.

Chapter two covers the history of caesarean section during the eighteenth century. Despite some improvements in success rates (success being judged in terms of maternal survival), the important debate over the propriety of performing the operation continued, one school of thought believing that it was a necessary course of action when a woman could not deliver vaginally, the other viewing the caesarean as tantamount to murder. This is not surprising considering the very high, practically total, maternal mortality rate that accompanied the operation during its early history.

Chapter three covers caesareans in the nineteenth century and demonstrates that by the end of the eighteenth century there had been a polarisation of attitudes towards the caesarean between French and British obstetricians. The French viewing the operation as preferable to leaving women with difficult labours to the rigours of nature, or resorting to the destruction of the infant, whilst the British view remained sternly opposed to

1 Young, J.H. (1944) 'Caesarean Section, The History and Development of the Operation from Earliest Times', London: H.K.Lewis and Co. Ltd.

caesareans. This chapter also gives details of maternal and infant mortality figures associated with the operation at that time.

Chapter four reviews the procedures, other than the caesarean section, that were developed to aid delivery during the eighteenth and nineteenth centuries. Some techniques, such as the symphyseotomy, were designed to supercede the caesarean. Others, for example, induction of premature labour, were proposed in order to pre-empt the necessity for abdominal delivery. Craniotomy was the method preferred by the British obstetricians who opposed the use of caesarean section.

Chapter five examines the evidence available on self-inflicted caesareans, that is, women performing the operation on themselves. The earliest recorded case occurred during the eighteenth century although the phenomena is not entirely unheard of in the twentieth century. In the majority of cases the outcome of the operation was not good for the infant. However, evidence suggests that throughout much of its history the practice of self-inflicted caesarean was actually safer for women than the so-called 'professional' procedures.

Chapter six charts the development of the operative technique for the caesarean section. From the early stages in development when each operation could have been as individual as the surgeon performing it, to more recent times when the precise technique for performing the operation has been clearly documented, revised and updated. Included in this chapter are details of important contributions to improvements in technique introduced by Porro and Sanger, together with the historical background to the, now familiar, lower-segment operation. The chapter ends with a brief summary of changes in the main indications for caesarean section up until the twentieth century.

Chapter seven details the role played by the caesarean operation in childbirth practice in the twentieth century. The concept of 'once a caesarean always a caesarean', which continues to affect section rates today, is introduced here. The chapter demonstrates that decreases in maternal mortality associated with the procedure led to increases in caesarean section rates, to the extent that the number of operations performed became a cause for concern. An issue which continues to be contentious.

## VOLUME II: THE EXPERIENCE OF CAESAREAN SECTION

High rates of caesarean section have not led to improvements in maternal or infant outcome, and may be responsible for iatrogenic morbidity and mortality. The increased use of abdominal delivery together with other interventionist techniques have had a deleterious effect on women's experience of delivery and denies them the opportunity to achieve a sense of accomplishment in childbirth. The aim of this study is to elicit responses from women having caesareans on a range of issues associated with their experiences of operative birth, in order to provide a detailed analysis of women's experience of caesarean section, and, ultimately, to suggest ways in which the outcome of surgical birth can be improved for women, their babies and hospital staff.

Chapter eight sets the scene for the study by discussing intervention in childbirth in general and the use of caesarean section in particular. The medical view of women is examined here as an introduction to the position of women, as patients, in the modern medical domain.

Chapter nine examines the concept of 'conflict' in maternity care by exposing the differing perceptions and experiences of childbirth between women and obstetricians. Notions of 'success', 'satisfaction' and 'knowledge' are examined in relation to childbirth, together with an important debate on the issue of 'power'. Knowledge and information are crucial determinants in the distribution of power between women and doctors and their role in this important relationship are assessed in this chapter.

Chapter ten provides a background for the study by highlighting current trends in caesarean section rates and examining the influences which affect differences in those rates. An international comparison is given together with a discussion of the influence of caesarean rates on perinatal and neonatal outcomes.

Chapter eleven begins with a descriptive account of medical indications for the caesarean operation today. It then examines non-medical variables, such as fear of litigation and consultant preference, which affect the number of operations performed. The evidence presented in this chapter suggests that too many caesareans are carried out for non-medical reasons and that this has serious implications for women in childbirth.

Chapter twelve examines the effects of caesarean section on women, their babies and the mother-child relationship. Relative benefits of the type of anaesthesia and operation (emergency or elective) are discussed here, together with evidence suggesting that elective operations performed under regional anaesthetic reduce negative sequelae in caesarean patients.

Chapter thirteen gives details of empirical work undertaken for the current study into women's experiences of caesarean birth. The chapter begins with a statement of the theory of the research together with the hypotheses and research questions. An account of the methodology is given followed by precise details of the results of the study.

Chapter fourteen provides a discussion of the results in relation to the first hypothesis, examining whether women suffer as a result of caesarean section. The results demonstrate that women do suffer following abdominal delivery both psychologically and physically, and that these effects can have a damaging consequences for the mother-child relationship.

Chapter fifteen concludes the thesis by examining the second hypothesis which concerns improvements in maternity services. The chapter summarises the main findings of the study and details recommendations on how the practice of caesarean section can be improved to ensure a better outcome for women and their babies as well as hospital staff.

VOLUME I

*The History of*  
*Caesarean Section*



## Chapter One

### CAESAREANS IN PRE-INDUSTRIAL TIMES

---

#### CAESAREAN SECTION: MYTH AND FOLKLORE

There have been many myths about caesareans in literature and folklore and the origin of the term 'caesarean section' has been the subject of much debate. One suggestion is that the term caesarean was derived from the birth of Julius Caesar or one of his ancestors who is said to have been delivered in this way. Yet the birth of Julius Caesar is unlikely to have been by this method as there are no recorded maternal survivals following caesarean birth at that time (100-144 B.C.) and Julius Caesar's mother lived on long after his birth (Newell, 1921, p.1). This, coupled with the fact that the term 'caesarean birth' was not recorded to have been used until 1581, suggests that the association of the caesarean operation with Julius Caesar is likely to be a myth.

It is reputed that a law was passed in Rome in 715 B.C. by the King, Numa Pompilius, forbidding the burial of a pregnant woman upon her death until the foetus had been removed in order that the mother and child could be buried separately. The caesarean operation was therefore mandatory in such cases. Newell, writing in 1921, suggested that this offered an explanation for the origin of the term 'caesarean'. The Roman law, the 'Lex Regia' became the 'Lex Cesaria' and thus the practice became known as the caesarean operation (Newell, 1921 p.2).

An alternative explanation was proposed by Delee (1913) who suggested that the word 'caesarean' comes from the Latin 'caesaru' meaning 'to cut' (Delee, 1913, p.990). The word was first used in connection with this operation by a French physician, Rousset in 1581 (Young, 1944, p.23). The word 'section' (latin: 'seco') also implies cutting and can mean 'incision'. But 'incision' can be interpreted as 'to part' or 'to divide' which refer to the process of 'opening'. If Delee's theory is

correct, the term 'caesarean section' literally means either 'cut cut' (meaning that the combined use of these words as in the British use of the term 'caesarean section' is unnecessary) or, a more plausible translation of the term caesarean section is 'cut open'.

Robert II, King of Scotland, is reputed to have been born by caesarean section on the 2nd of March, 1316. The operation was carried out postmortem following the death of his mother from a broken neck after falling from her horse (Crawford, 1710, in Young, 1944, p.7). There is also speculation that Edward VI, son of Henry VIII and Jane Seymour, may have been delivered by caesarean on October 12th, 1537. There is some confusion as to the exact number of days the Queen survived after the birth and also whether she was already dying during labour or died because of the operation (Holinshead, 1577, in Young, 1944, p.8). The King is reputed to have ordered the caesarean section to be carried out when asked by the attending physicians whether to save the life of the infant at the risk losing his wife. The King's reason being that he could always replace his wife! (Churchill, 1841, in Young, 1944, p.9),.

Various myths and legends from different regions suggest that abdominal birth was widely believed to be the 'godly' way to enter the world. A person who had been cut out of her/his mother's body was considered to be 'unborn' up until the eighteenth century (Lomas and Enkin, 1989, p.1183).

Shakespeare mentioned the caesarean operation in his play Macbeth. In a desperate attempt to save his own life, Macbeth declares that he "*must not yield to one of woman born*". Unfortunately, this tactic is rendered useless when his assailant, Macduff, declares that he was born by caesarean, or rather, "*from his mothers womb, Untimely ripped*" (Shakespeare, 1605).

, Despite having been recorded by various writers both of these events lack evidence and are, therefore, without foundation (Hull, 1798, p.15).

## CAESAREAN SECTION IN PRE-INDUSTRIAL TIMES

It is impossible to ascertain when the caesarean section was first performed. The antiquity of the operation, however, is definitely established under the early Roman civilisations (Young, 1944 p.4). Records show that as early as 3000 B.C. in Egypt and 1500 B.C. in India amongst the ancient Hindus, the removal of the foetus by a surgical incision of the abdomen was mandatory by law at the time of the death of the mother if movement of the foetus was detectable (known as post-mortem caesarean). It appears that the operation was rarely, if ever, carried out on a living woman. The earliest record of a child surviving the operation is that of a Sicilian orator, Gorgias, in 508 B.C. (Boley, 1935, in Young, 1944, p.7).

The caesarean section is recorded to have been performed on the wife of a Tartar prince in China during the Wei dynasty (A.D. 225). Both mother and child are reputed to have survived (Bishop, 1960, p.43).

It is probable that the operation was known to the early Jews as it was mentioned in the 'Mishnah' (the oldest book of Judaism) which was first published in 140 B.C. and possibly earlier. The operation also appeared in the 'Talmud' (the next oldest book which originated between the second and sixth centuries). In fact amongst this religious group it must have been carried out on living women who were expected to survive as their law stated that women having caesareans were not required to observe days of purification as did those who had a vaginal delivery (Bishop, 1960, p.44). However there is some scepticism regarding the use of caesarean section by the early Jews:

*"Several authorities believe that certain passages in the Talmud may be so interpreted as to point to its performance on the living amongst the Jews, but the evidence is, to say the least, unconvincing and lacking in authority" (Newell, 1921, p.3).*

The extent to which the operation was performed is unknown but, despite the doubts of commentators such as Newell, the limited evidence available does suggest that it is extremely likely that the caesarean

section was practiced long before the start of the Christian era (Young, 1944, p.9).

One of the most famous figures of the medical history of India during the fifth century was Susruta. His extensive lists of the methods and instruments of surgery includes the caesarean section (Bishop, 1960, p.38), thus confirming that the operation was known to early civilisations in India.

The early Christian era is likely to have had an effect on the practice of the caesarean section,. For it appears that from early Christian times to the sixteenth century, the caesarean section was hardly used at all, when it was employed, it was more often practiced in cases where the woman had died late in pregnancy in the hope of saving the child (Newell, 1921, p.1).

#### CAESAREANS IN THE SIXTEENTH AND SEVENTEENTH CENTURIES

In more recent history it is recorded that in 1542 a surgeon - Maitre Vincent, performed the operation on a woman called Nicole Beranger. The child was already dead but the patient made a full recovery and later gave birth to two children vaginally (Young, 1944, p.15). If this information is correct it is of utmost importance because it represents the first delivery by caesarean section with a *recorded* maternal survival.

The next maternal survival from a caesarean was not recorded until almost 50 years later. It is reputed that Jacob Nufer, a Swiss hog gelder, performed a caesarean section on his wife, Elizabeth Alespachin during a prolonged and obstructed labour in Sigerhausen, Switzerland in 1588. Mother and child survived and recovered. Elizabeth went on to deliver six more children, one set of twins and four single births, presumably vaginally, and the child, despite her/his dramatic entrance to the world, is reputed to have lived to the age of seventy seven

, See discussion on 'The Role of the Church' p.8.

(related in Caspar Bauhin's Appendix to 'Rousset's Treatise, 1588, from Hull, 1798, p.38; Lancet *The*, 1851a, p.153, and Newell, 1921, p.3). This event is highly significant in the history of the caesarean section as it is the first recorded case of the operation where both mother and child survived.

#### The Debate: To Section or not to Section?

It was during the sixteenth century that the debate over the ethicacy of performing the operation on a living woman began. One school of thought believing that the mother's life could be saved in the event of obstructed labour by surgical removal of the child, and the other seeing the operation as tantamount to murder. A determined opponent of the operation was Ambrose Parè (1510-1590) who condemned those who would dare to perform it because:

*"no man can persuade me [it] can be done without the death of the mother"* (Parè, 1579, translated 1678, in Young, 1944, p.24).

The term 'caesarean birth' was first used by the Frenchman Rousset in 1581. Although he had not performed the operation himself, his paper was important because it opened the debate on the relative benefits of the operation and drew attention to the possibility of performing the caesarean on a living woman (Young, 1944, p.23). The debate continued and in a book on Childbirth published by Guillimeau in 1598 the usefulness of performing the operation on a living woman was discussed but Guillimeau did not advocate the practice (Young, 1944, pp.26-7). He had performed the operation twice in the presence of Ambrose Parè and some of the most distinguished surgeons of Paris. Both women died (Lancet *The*, 1851a, p.153). Guillimeau stated that in 1609 he had witnessed the operation performed on three other women and they also had died. In recounting Guillimeau's work, The Lancet, some 240 years later, suggested that these disastrous results lead to the abandonment of the caesarean operation by all 'sound' (*Sic*) practitioners in Paris (Lancet *The*, 1851a, p.153).

Mercurio became the first surgeon to advocate the caesarean section for cases of contracted pelvis in 1604 (Young, 1944, p.28). This is

important because it implies for the first time that the medical/physical condition of the woman prior to labour may have an effect on her experience during labour. A fact which had not been publicly considered before.

On April 21st 1610, Professor Sennert of Wittenberg University recorded a case of a caesarean section being performed by Trautmann on a woman for whom a natural delivery was impossible because of a large hernia containing the pregnant uterus (Newell, 1921, p.4). According to Young (1944), this operation represents:

*"The first definitely authentic case of caesarean section intentionally performed upon a living woman".*

Unfortunately the woman died 25 days after the operation from an infection because the surgeon had not closed the wound or the uterus (Young, 1944, p.30). Such omission was common at that time. Thus the performing of the operation on a living woman remained highly controversial and in 1616 William Harvey (renowned for discovering the circulation of the blood) followed his predecessors in stating that the caesarean operation should only be used on the death of the mother (Young, 1944, p.38).

The high maternal mortality rate associated with caesarean section is not surprising considering that the caesarean operation was a very rudimentary procedure during the sixteenth and seventeenth centuries. Anaesthetics were unknown; the patient was tied down or held by assistants; the wound was not stitched but left gaping, the edges of the abdominal wall being brought together by a couple of crude stitches, bandages and/or sticking plaster (Young, 1944, p.33).

One of the early champions of the caesarean section was Hendrik van Roonhuyze. In 1663 he published what has been described as the first work in operative gynaecology. In it he cited the case of Sonnius, a physician of Bruges, who had performed the operation several times on his wife, obviously with a great deal of success. Roonhuyze himself was also noted as having successfully performed the operation (Young, 1944, p.29).

Considering the high (practically total) maternal mortality rate associated with the caesarean section, success was judged in terms of survival of the mother. Success, however, was a rare event and so the debate over the propriety of performing the operation continued. Francois Mauriceau (1637 - 1709) published a book in 1668 on pregnancy and childbirth, translated by Chamberlen in 1672, which soon became the text-book of English accoucheurs (Lancet *The*, 1851a, p.153), and according to Young, was the most thorough and well-informed work produced at that time. As one of the leading obstetricians of the seventeenth century, Mauriceau's determined opposition to the caesarean section, except in post-mortem cases, became one of the biggest obstacles to the development of the operation at that time (Young, 1944, p.28). His argument was that as the operation meant almost certain death to the mother, surgeons had no right to determine that a mother should die in order to save the life of her child. He stated:

*"I do not know if there was ever any law, Christian or Civil, which doth ordain the martyring and killing of the mother to save the child"* (Mauriceau in Lomas and Enkin, 1989, p.1183).

It is difficult to estimate the number of caesarean sections being performed in pre-industrial times with any degree of certainty. From the sixteenth to the nineteenth century the statistics on the performance of caesarean were fragmentary and in some ways contradictory. Churchill recorded that in the sixteenth century there were 24 successful cases of caesarean section. In the seventeenth century there were 33 operations and only 8 fatalities up to 1741 (Churchill, 1841, in Young, 1944, p.33). Young offers an explanation for the low fatality rate as not competence in the operative technique but rather enthusiasm for reporting successful cases and reluctance to report unsuccessful operations (Young, 1944, p.33). This is not surprising given the violent opposition to the operation from many of the leading obstetricians in Britain at that time.

#### The Role of the Church - Part I

During pre-industrial times religion played a leading role in the decision making of most aspects of life including pregnancy and

childbirth. The Roman Catholic Church barred abortions, craniotomy, or embryotomy<sup>2</sup> as measures for delivering the foetus in order to save the life of the mother. In 1733 the medical profession asked the doctors of theology at the Sorbonne whether it was religiously correct to sacrifice the woman in order to possibly save the life of the baby in the case where a woman could not deliver vaginally. On March 30th they replied that if one could only save the life of one or the other there was a conflict. Justice would imply it better to sacrifice the baby, however, they believed that according to charity it was better to save the baby because it was only at the expense of the mother's life that the baptism of the child be assured and eternal life therefore secured (Young, 1944, p.41). This ruling meant that craniotomy was not allowable in order to save the life of the mother. It was their view that the child must be removed in order that it may be baptised to save it from having to spend eternity in 'Limbo', a place in between heaven and hell that once existed in the official doctrines of the Church. Sacrifice of the mother's life was justifiable as she had already been baptised and would therefore avoid such an unspeakable fate (Guillimeau, 1612, p.224). The foetus in utero was seen to have two kinds of life - a corporeal (or bodily) one, the other a spiritual life. The latter only being endowed on the foetus through baptism. The spiritual life of the child was regarded as more precious than the corporeal life of the mother (Lancet *The*, 1851a, p.153). Thus the question of whether or not to perform the caesarean operation ceased to be a purely obstetrical, surgical or scientific one and became strictly a theological one.

The Church also advocated caesarean section in the case where the woman had died (Newell, 1921, p.4). This is comparable to the earlier practices in ancient civilisations as discussed above but the reasoning was different. The Catholic view was, again, to save the soul of the

<sup>1</sup> *Craniotomy: perforation, breaking or crushing of the foetal skull in order to extract the infant (in pieces) through the vaginal canal.*

<sup>2</sup> *Embryotomy: a procedure whereby the infant is mutilated in utero and extracted in pieces. Where the head is the part of the infant presenting, the process is referred to as 'craniotomy'.*



child. Guillimeau (1612) stressed the importance of the the operation *"that thereby the child may be saved and receive baptism"* (Guillimeau, 1612, p.224) although he was not advocating sacrifice of the mother's life for this purpose. He stated:

*"Lawyers judge them worthy of death, who shall bury a great bellied woman that is dead before the child is taken forth because they seem to destroy the hope of a living creature. The chirurgion must be certainly assured that the woman is dead, and that her kinsfolk, friends and others that are present, do all affirm that her soul is departed"* (Guillimeau, 1612, p.185).

He continued to say that to be assured that the mother had in fact died one should place some light feathers over her mouth and with even light breath they would fly away (Guillimeau, 1612, p.186).

## Chapter Two

### **CAESAREANS IN THE EIGHTEENTH CENTURY**

---

#### CAESAREANS IN THE EIGHTEENTH CENTURY

From the early eighteenth century doctors became increasingly involved in childbirth with a resultant surge in publications on obstetrics. The numbers of caesareans being performed slowly increased and successful cases were accounted in great detail. Success again being measured in terms of maternal survival. As detailed above some earlier attempts had managed to save the child but had resulted in maternal death in most cases.

Ruleau (1704) published a dissertation discussing the usefulness of the caesarean operation and also describing a successful one he had performed on a patient who had been in labour for five days. Both the mother and child survived (Ruleau, 1704, in Young, 1944, p.34). Similarly, the use of the caesarean operation was (somewhat cautiously) advised by Guillaume de la Motte in 1721, particularly for cases of extreme distortion of the pelvis, thus advocating the use of the operation on living women (de la Motte, 1721, in Young, 1944, p.34). Supporting this view later that decade, Simon, a French surgeon furthered the cause of the caesarean operation stating that the procedure should be carried out where vaginal delivery was impossible. He supported his claim with the description of eleven successful cases carried out between 1723 and 1738 (Young, 1944, p.34).

However, there were some relentless opponents to the operation. M. Dionis published a work on obstetrics in 1718 stating that under no circumstances should the operation be performed unless the woman was dead and that anyone who would operate on a living woman deserves to be punished for their butchery. In Britain too, opposition to the operation continued and in 1739, Sir Richard Manningham advised that as the operation was *always fatal (Sic)* to the mother it should only be

performed after her death (Manningham, 1739, in Young, 1944, p.34). This being the most popular opinion on caesarean section at that time, midwives were likewise advised to only perform the operation on a patient who had died. The rules of midwifery contained instructions on how to ascertain whether or not the mother had actually expired so that the caesarean could be carried out:

*"If she does not respond to penetrating odors, is ice-cold, without pulse, looks collapsed and pale as death, and if her breath leaves no traces on a mirror"* (Nöth, 1913, in Shorter, 1982, p.160, original spelling),

then, presumably, the woman could be considered dead and the operation performed.

The first *recorded* caesarean section to be carried out in Great Britain was performed by Smith, an Edinburgh surgeon on 29th June 1737, when summoned to a patient who had been in labour for six days. On examining the patient he found that a normal delivery was impossible and performed the caesarean section with the agreement of two other physicians and the relatives of the patient who had been duly warned of the risks involved. The child was removed dead and the woman died the following day (Young, 1944, p.36). This experience clearly did not silence the critics of the operation.

Seven months later, on the 1st January 1738, the first recorded caesarean section performed by a midwife, Mary Donally, in the then United Kingdom was recorded. The patient was Alice O'Neale, aged 33, of Charlemont, Ireland, mother of several children. Alice had been in labour for 12 days and attended by numerous midwives with no success. The child was believed to be dead after the third day. In desperation relatives called in a local woman famous amongst the community for extracting dead births, Mary Donally. After attempting to deliver the patient without success she performed a caesarean operation. On removing the dead infant Mary Donally held the sides of the wound together with her hands while neighbours went to fetch silk and a tailor's needle with which she stitched the wound. Donally then treated the wound with the white of eggs. Alice O'Neale made a full

recovery but later developed a large ventral hernia as did many other patients of caesarean section at that time (Stewart, 1771, p.37).

Stewart, a surgeon from Dungannon, wrote:

*"In about twenty seven days the patient was able to walk a mile on foot, and came to me in a farmer's house, where she showed me the wound covered with a cicatrice, but she complained of her belly hanging outwards on the right side where I ... advised to support the side of her belly with a bandage. The patient has enjoyed good health ever since, manages her family affairs, and has frequently walked to market in this town which is six miles distance from her own house"* (Stewart, 1747, p.361-2).

The fact that the first successful operation in Great Britain was performed by a midwife did not please the medical profession and in the literature there was much disparagement of midwife Donally's success. In 1855 Dr. Robert Lee was reported in *The Lancet* as calling Mary Donally an *"ignorant Irish midwife"*. He then went on to cast doubts over whether the case actually existed and suggested that it should be removed from the data on successful cases (*Lancet The*, 1851a, p.154). As late as 1944 Young called the achievement *"a matter of good luck rather than good judgement"* (Young, 1944, p.54) thereby demonstrating a continued reluctance to acknowledge the skill of this midwife.

In 1742, the 'Treatise of Midwifery' by Ould was published. This work condemned the caesarean operation suggesting that any dilemma about whether the life of the mother is worth risking in an attempt to save the life of the child could only be answered by the 'Divines' (Ould, 1742, in Young, 1944, p.38).

#### The Debate Continued

By the mid eighteenth century few members of the medical profession were prepared to speak out in favour of the operation. One of the few was John Burton who, in 1751, became the first British obstetrician to write in support of the caesarean section despite not having performed the operation himself. As only an extremely limited number of caesareans had been performed in Britain at that time, Burton presumably based his work on the writings of the French obstetricians.

In his book, Burton went into the greatest detail on the caesarean section than had been previously undertaken. Burton believed that the operation was necessary in certain cases and that the risks associated with the process had been exaggerated by previous writers (Burton, 1751, in Young, 1944, p.42). His views were not well received (Young, 1944, p.42) which is not surprising given the strength of opinion against the operation in Britain at that time.

Two years later, in 1753, a work that was more favourably received than Burton's was published by William Smellie. In 'A Treatise on the Theory and Practice of Midwifery' Smellie took the more conservative view of caesarean section with regards to living patients, that is, as a last resort, performed only on a woman who is strong and healthy and cannot possibly be delivered by any other method. Otherwise, according to Smellie, the usefulness of the operation was limited to attempting to save the life of the infant following the death of the mother (Smellie, 1753, in Young, 1944, p.44).

It was also during the latter half of the eighteenth century that the first suggestion was made that the caesarean section could be used by obstetricians for personal rather than medical reasons (an argument which continues today). In 1783, William Dease condemned the operation stating that in many cases it had been performed unnecessarily by rash and ignorant men anxious to establish a reputation. He declared that "*much to the honour of the Irish surgeons*" the operation had never been performed in Dublin (Dease, 1783, in Young, 1944, p.49).

In the same year, Alexander Hamilton, Professor of Midwifery at Edinburgh University, published the first edition of his major work on obstetrics: 'Outlines of the Theory and Practice of Midwifery' in which he conceded that caesarean section was necessary in cases of contracted pelvis, but only:

*"when it appears absolutely impossible to deliver the woman by any other means ... we ought then only to employ the dreadful expedient of cutting into the uterus to extract the child"* (Hamilton, 1783, in Young, 1944, p.52).

However, he was later to argue very strongly against the operation and recommend craniotomy as preferable to caesarean section in most cases (Hamilton, 1803, p.267).

Thus strong opposition to the operation continued, based mainly on the extremely high maternal mortality rates associated with it. Aitken (1785) stated:

*"this formidable operation, intended to save mother and child, has been performed during many centuries with various success. In Britain it has never fully had the desired effect, all the mothers have died"* (Aitken, 1785, in Lomas and Enkin, 1989, p.1183).

Writing in 1788, Jaques Rene Tenon recorded only 79 successful caesarean sections in the whole of Europe since 1500 (Tenon, 1788, p.251, in Shorter, 1982, p.161). This number reflected the great risk involved in the operation at that time. In 1792, Osborn called the caesarean section a most "fatal operation". Being equally opposed to the symphyseotomy,, Osborn recommended performing craniotomy early in labour (Osborn, 1792, in Young 1944, p.51).

#### The Success Rate Rises

It was not until 1793 that James Barlow, a surgeon of Blackburn, Lancashire, carried out the first successful caesarean section recorded in this country to have been performed by a physician. His patient, Jane Foster, had an extremely deformed pelvis due to being run over by a loaded cart prior to becoming pregnant. When she went into labour she understandably became very distressed and was in much pain. As normal delivery was impossible, caesarean section was suggested and the likely outcome of the operation explained to the patient. Her pain and distress being considerable by this time, Jane Foster agreed with little hesitation. The operation was performed with no anaesthetic, the wound was stitched and then the patient wrapped in flannel. Both mother and child are reputed to have survived (Barlow, 1798, in Young, 1944, p.54).

, *Symphyseotomy: an operation whereby the pubic bone is cut through in order to allow a larger opening for the infant to pass through the pelvic girdle.*

The following year (1794), the first successful caesarean section in the United States was recorded to have been carried out in a log cabin in Edom, Kanawha Valley, Virginia (NIH, 1981, p51). Dr. Jesse Bennett performed the operation on his wife in a frontier settlement. Labour was difficult due to a contracted pelvis and Dr. Alex Humphrey was called in for consultation. Forceps failed and Mrs. Bennett did not want a craniotomy. Dr. Humphrey would not perform the caesarean and so Dr. Bennett did it himself. Mrs. Bennett was stretched out on a crude plank resting on two barrels and put under the influence of a large dose of opium. Both mother and child survived. Dr. Bennett refused to report the procedure in the medical literature as he felt that no one would believe that both mother and child survived (Cianfrani, 1960, in NIH, 1981, p.51). However it appears that his fears were unfounded as the Journal of the American Medical Association (JAMA) at the time stated dramatically:

*"The courageous frontier surgeon by one quick stroke of the knife opened the abdomen and uterus and quickly delivered the child and placenta. At this stage he delayed long enough to remove the ovaries. The wounds were closed by a stout linen thread and contrary to the expectations of everyone present Mrs. Bennett was soon well and active"* (JAMA, 1794, p.1942).

Back in London at that time, the debate amongst the obstetricians raged on. Thomas Denman published his 'Introduction to the Practise of Midwifery'. He agreed with Hamilton, that caesarean section should only be performed in cases of severe deformity of the pelvis and that the decision to operate should not be made by one practitioner but in consultation with as many practitioners as possible (Denman, 1794, in Young, 1944, p.53). It was Thomas Denman who continued the discussion on the ethical issue of saving the child at the expense of the mother's life, an action which he believed could be justified. His rationale for such action being that if repeated attempts to deliver a live child had been frustrated by a restricted pelvis, the parents could possibly be offered the option of caesarean section as a means of fulfilling "one great end of marriage", that is, procreation, even if this meant the probable death of the mother! (Denman, 1794, in Young, 1944, p.50).

1. Hamilton, 1783, p.267. See above, p.14.

### The Caesarean Controversy

In 1798, Dr. John Hull became the first person recorded to have carried out more than one caesarean. As with his first attempt, only the child survived (Young, 1944, p.58). Further, 1798 marked the beginning of an important controversy over the caesarean section operation between Dr. Hull and Mr. W. Simmons, both of Manchester. Simmons published a paper entitled 'Reflections on the Propriety of Performing the Caesarean Operation' (1798) in which he highlighted the very high (practically total) fatality rate from the operation in England compared to the relatively good success rates recorded for the rest of Europe. Not believing the rates for other countries to be of relevance to England he advocated the traditional conservative use of the operation only in the event of the death of the mother. Hull took exception to Simmons' condemnation of caesarean section and in a reply paper later that month he pointed out many discrepancies in Simmons' argument against the operation, not least of all his assertion that it was always fatal to the mother (Hull, 1798, pp.5-7).

Hull published a book in that year entitled 'A Defence of the Cesarean Operation' in which he questioned whether the operation was always fatal to the mother and went on to list the situations in which he would recommend the use of the operation:

*"1. Where the Mother is dead, for the preservation of her Offspring;*

*"2. Where the Child is dead, or supposed to be so, for the preservation of the Parent;*

*"3. Where the Mother and Child are living, for the preservation of both" (Hull, 1798, p.5).*

In his book, Hull quoted Simmons as saying that the caesarean:

*"has proved fatal in England in every instance ... [and is] an operation that has proved so fatal to my country women ... [that it] must be abandoned" (Simmons, 1798, p.30, in Hull, 1798, p.7).*

Hull went to great lengths to point out the difference between the patient:



*"dying from an operation, and after an operation"* (Hull, 1798, p.8, original emphasis).

Hull accused Simmons of being *"blinded by prejudice"* and suggested that he had made his judgement on cases without knowledge of the full facts and conditions of the patient in each case and as such:

*"the value of the operation ought to be appreciated"*

for such cases (Hull, 1798, pp.8-10).

Following a response from Simmons in May 1799, Hull once again defended the caesarean section operation and went on to write one of the most comprehensive lists of circumstances which may necessitate the use of the operation. Most of his 'indications' revolved around variations of restricted pelvis and also included uterine rupture, abnormal presentation, deformity of the foetus and extra-uterine gestation (Hull, 1799, in Young, 1944, p.61). Hull's writings (1799) have been referred to as the most valuable and illuminating to the medical profession at the time (Young, 1944, p.61).

Simmons responded to Hull's work following the death of a woman, Elizabeth Thompson, in Manchester after a caesarean operation performed by Mr. Wood. The theme of Simmons' response was that to perform the operation on a living woman was tantamount to murder. Throughout his writings Simmons upheld the notion that only God is able to decide who should live and who should die and that it was not up to physicians to make this choice (Simmons, 1799, p.231).

The debate which took place between Hull and Simmons is an important one in the history of caesarean section because it highlighted the relative advantages and disadvantages of performing the operation. As Radford (1865) stated, the controversy *"brought the greater part of the medical profession to entertain more clear and definite opinions"* (Radford, 1865, p.1). However, the balance of opinion in Britain, contrary to that in France, remained against the operation.

Up to the end of the eighteenth century, Radford recorded that there

had been nineteen caesarean section operations performed by physicians in Britain. Of the nineteen operations only two mothers and seven children had survived. However, he was of the opinion that this figure was remarkable considering that the operation was such a "hazardous undertaking" at that time. Before the 1800s caesarean sections had been "operations of desperation" performed as a last resort on dying mothers, in an attempt to save the baby. Those surgeons who dared to perform the operation were most often treated with scorn and condemnation by their British colleagues (Radford, 1865, p.11). Thus by the end of the eighteenth century the caesarean remained a controversial issue and few obstetricians would actually attempt the operation.

## Chapter Three

### CAESAREANS IN THE NINETEENTH CENTURY

---

#### CAESAREANS IN THE NINETEENTH CENTURY

During the nineteenth century the debate over whether 'to section or not to section' raged on.

The year 1798 was very important in deciding the future of policy for performing caesareans throughout the nineteenth century. It ended with doctors in Britain and France making different decisions about the operation.

#### French Optimism

French proponents of the caesarean section such as Baudelocque were eager to point out that despite the hazards, the fate awaiting the patient if the operation was not performed could have been much more horrific (Baudelocque, 1801, p.14). In a report to the Society of Medicine in Paris (September 1798) he stated:

*"In order to admit the necessity of this operation, it ought to be demonstrated, that there is more advantage in performing it, or less risk incurred by the woman, than in leaving her and her child to the efforts of nature, as has been usually done to this very time" (Baudelocque, 1801, p.19).*

Baudelocque made an influential contribution to the caesarean section debate in his 'Memoirs on Caesarean Section' (1798 and 1799, translated by Hull in 1801). The aim of his first paper was to raise a number of questions:

*"1st. Do cases exist, in which delivery by the natural passages is physically impossible?"*

*"2d. These cases being determined to exist, is the cesarean operation indispensably necessary?"*

"3d. Is the Cesarean Operation inevitably fatal to the mother?" (Baudelocque, 1801, p.9).

Baudelocque accepted the necessity of the operation for cases of contracted pelvis and other unusual conditions, and went on to add the condition of tumours of the vagina as an indication. He therefore highlighted the fact that there are some cases where vaginal delivery is absolutely impossible and caesarean section the only option available to extract the child. Baudelocque was critical of other interventionist techniques such as craniotomy, symphyseotomy and induction, suggesting that laws needed to be passed obliging obstetricians to carry out caesarean section in certain circumstances rather than outlawing its practice as some of his predecessors had proposed (Baudelocque, 1801, p.9).

After a discussion of Baudelocque's report, the Society of Medicine in Paris accepted that the operation had been a success and in some cases could lead to saving the lives of both the mother and baby. It unanimously decided that it was the duty of the physician to carry out caesareans and that two hundred extra copies of Baudelocque's report should be sent to different judicial and administrative bodies (Baudelocque, 1801, p.107). There was some opposition outside the Society, notably from a colourful character called Jean Francis Saccombe who had studied in England under William Hunter, the best known of the contemporary British obstetricians. Saccombe, who founded the 'Ecole Anti-Caesarienne' (anti-caesarean school) in 1798, made the bold claim that he could deliver any woman without resorting to the use of instruments, by virtue of his hands alone. An avid anti-caesareanist, Saccombe denounced pro-caesareanists such as Baudelocque as murderers. Believing the healing of a uterine incision to be unlikely, he claimed that those who practiced caesarean section did so for their own personal gain in terms of finance and publicity (Young, 1944, p.69). Not surprisingly, Saccombe was fined 3,000 Francs for slander of Baudelocque and later fled the country.

#### British Conservatism

In Britain the anti-caesarean lobby was in ascendance and led to a difference in practice from the rest of Europe. At the beginning of

the nineteenth century the bulk of British obstetric opinion was opposed to caesareans and the textbooks of the time reflected that view. In 1803, Alexander Hamilton published the fifth edition of his book entitled 'Outlines of the Theory and Practice of Midwifery' in which he argued against the major indications commonly used to identify the necessity for the operation at that time. His reasoning was thus:

1) Blocked or Contracted Passages.

Hamilton stated that in cases where the usual delivery passage was blocked by tumours for instance, it was never necessary to perform the caesarean section. He stressed that tumours of the vagina could be removed in safety even after labour had commenced, and further suggested the possibility of passing a hand by the side of the tumour, to turn the child and deliver. Believing that as long as no deformity of the pelvis was present, the child could be delivered in the usual way through the force of the contractions or the use of the scalpel to remove obstacles (Hamilton, 1803, pp.258-261).

ii) Lacerated Uterus.

According to Hamilton, these cases were usually fatal and could not be saved by caesarean section. He argued against the operation saying that it was inhumane to perform it on a dying mother even if the rationale was to save the life of the child. Rather, he suggested, one should wait at least until the mother "expires" (Hamilton, 1803, p. 263).

iii) Ventral Conception (that is, conception outside of the womb/uterus, for example, ectopic).

Hamilton suggested that despite the pain to the mother, the expulsion of such pregnancies should be "generally trusted to nature" (Hamilton, 1803, p.266).

iv) Uterine Hernias.

Hamilton stated that hernias were not sufficient indication to necessitate the performance of the caesarean section and that deliveries under such circumstances have been happily performed "without recourse having been made to so hazardous an expedient" (Hamilton, 1803, p.266).

v) Position or Size of the Child.

Hamilton dismissed caesarean section for such cases believing the operation to be totally unnecessary in the light of contemporary obstetric knowledge and instruments. Presumably here Hamilton was proposing the use of forceps or craniotomy as these constituted the extent of obstetric knowledge and practice at that time.

vi) Defective Pelvis.

Hamilton considered the degree of deficiency of space in the pelvis to be an important factor, but once again recommended the use of craniotomy rather than caesarean:

*"Experience has proved, that where ready access is obtained for the admission of the necessary instruments, the head of the child may, by the operation of embryotomy, be so diminished ... [that] the extraction of the mangled infant is practicable"* (Hamilton, 1803, pp.270-1).

It appears from his writing that Hamilton had little regard for the discomfort and suffering of the pregnant woman, or for that matter, her child. But rather, he viewed them as interesting cases, useful only in terms of study and examination to enable him to analyse and theorise about the bodily functioning of womankind and nature itself. He recounted in great detail particular cases, charting every stage of complicated labours, including one case of a woman with extreme contraction of the pelvis where the pelvic gap was so narrow that Hamilton's instruments could not be introduced into the uterus in order to extract the child. Hamilton described the conditions of the woman from initial signs of labour, through extreme pain and vomiting, to the rupture of her uterus, and inevitably her death after many days of suffering (Hamilton, 1803, pp.272-281). Undeterred by this, Hamilton went on to state:

*"the histories of the operation, hitherto on record, do not appear to me to contain the ample information which would be required by one compelled to perform it"* (Hamilton, 1803, p.293).

This is not surprising considering that the mortality rate from caesarean section in the early nineteenth century was 95% (Routh, 1911,

p.2). Thus British obstetricians were reluctant to perform the operation preferring instead to extract the infant through the natural passages by any means available. This would entail the use of forceps where possible, but in cases where the pelvic opening was too narrow the physicians would resort to the destruction of the infant (embryotomy or craniotomy) in order to extract it piece by piece. S. Hare (1838) was critical of the French and German surgeons who he said had boasted of their success with the caesarean operation and went on to praise British practitioners for not resorting to it:

*"How thankful, then, ought we to be that scientific men have now invented instruments with the humane intention, if possible, of utterly eradicating this cruel operation"* (Hare, 1838, p.702).

The 'instruments' he referred to were the ones designed to destroy the infant. Regarding the caesarean section he went on to state:

*"I sincerely trust that we may never again hear of its performance in this fair isle"* (Hare, 1838, p.702).

Even so, it was not the anti-caesareanists that deterred British obstetricians from performing the operation but rather the high mortality rate that continued to accompany it. In a series of lectures published in The Lancet in 1856, W. Tyler Smith said that the caesarean section should never be resorted to *"save in the utmost necessity"* as the *"mother is almost surely sacrificed"*. He went on to say:

*"it is, and probably will ever remain, the most formidable operation which can be performed on the living body"*.

On the question of the circumstances under which the caesarean operation might be justifiable or even necessary, Tyler Smith stated that no point of importance in midwifery had been more keenly debated and less definitely settled at that time (Tyler Smith, 1856, p.639).

#### Maternal Mortality

One of the most detailed pieces of research into maternal mortality from caesarean section was that of Kayser of Copenhagen from 1750-1839.

He suggested that there were many cases that were not reported, but that of 339 operations on record only 38% of women survived. He felt this was an overestimate because in the 67 cases in which the operation was carried out in a hospital, where concealment would be much more difficult, the success rate was less at 20% and he believed care would have been better than average (Kayser in Tyler Smith, 1856, p.640). Kayser may have been wrong of course because infections were likely to be much more common in hospitals. However, one of his findings was that the success rate was improving. During the period 1750 to 1800 one third of women survived (32%), from 1801-1832 37% survived, and from 1833-39 over half (51%) lived. He also found that where the woman had been in labour seventy two hours or more the success rate was only 28% while if labour was under 24 hours the success rate was four out of five (80%) (Kayser, 1844, in Francome et al., 1993, p.27).

The caesarean section was much more popular in the rest of Europe than in Britain during the eighteenth and nineteenth centuries despite the poor record in terms of patient survival. It appears that it was also safer. Much statistical evidence was emphatically highlighted to support or contend the practice of the caesarean section. Despite the dubious reliability of some of the data collected at that time, one thing was certain - caesarean section in Britain constituted a much more dangerous operation than in the rest of Europe and also, by that time, in the United States (See *Table 1.1*).

Many of the cases contained in the data given in *Table 1.1* are likely to have been repeated in more than one of the collections. Further, the smaller sample sizes for the United Kingdom data may give a less favourable picture of the operation in those areas. It is also the case that all statistics are likely to present a more favourable picture of the operation than the real results as successful cases were reported more than the failures. However, the data could be interpreted as representing a small but gradual improvement in success rates towards the end of the nineteenth century, particularly in the United Kingdom. What these data do serve to highlight is the very high maternal mortality rate from the caesarean operation in general and the striking difference in success rates between Britain and the Continent in particular. Even so, in the words of W. Tyler Smith in 1856 "*The*



most favourable of these results are sufficiently discouraging" (Tyler Smith, 1856, p.639).

Table 1.1 Some International Rates of Maternal Survival From Caesarean Section in the Nineteenth Century

U.K.				Other countries.			Source
Period	Country	No. Cases	% Mothers Survived	Country	No. Cases	% Mothers Survived	
1750-1856	G.B.	63	29%	Foreign	321	46%	Churchill (1856),§
to 1856	England	26	8%	-	-	-	Merriman (1856)‡
to 1862	Britain	-	14%	-	-	-	Murphy (1862)†
to 1865	G B & Ireland	77	14%	-	-	-	Radford (1865, p.7)
to 1866	U.K.	-	11%	-	-	-	Routh (1911, p.6)
to 1872	-	-	-	France	344	45%	Schroeder (1873)‡
to 1872	-	-	-	Germany	712	47%	Schroeder (1873)‡
to 1876	U.K.	-	16%	-	-	-	Routh (1911, p.6)
to 1877	-	-	-	U.S.A.	80	48%	Harris (1878)†
to 1879	G.B.	131	18%	-	-	-	Radford (1880)‡
1852-1880	-	-	-	U.S.A.	120	42%	Young (1944, p.88)

(§ from Tyler Smith, 1856, p.639; † from Newell, 1921, p.5; ‡ from Francoe et al., 1993, p.28).

Of course many explanations were forwarded for this anomaly including high alcohol consumption amongst British women and climatic differences between Britain and the rest of Europe (Young, 1944, pp.89-90). But it is more likely to be due to the fact that on the continent the operation was performed on healthy women, the subjects of deformity, at the commencement of labour whilst the unwillingness on the part of the British practitioners to perform the caesarean section will have meant that the patients were already in a much weakened state by the time the operation was deemed to be necessary, as it was often resorted to only after other means of delivery had failed. This coupled with the inexperience of the British in the operative technique meant that the prognosis would not have been good for British women.

There is doubt over these data because of the antiquity of some of the cases.

Religion would also have had a role to play in the discrepancy between Britain and the rest of Europe. The greater influence of the Church in Roman Catholic countries of Europe, with their emphasis on preserving the life of the child, or at least extracting the child in order that it may be baptised<sup>1</sup>, would have rendered other techniques such as craniotomy obsolete, and explains, in part, the higher caesarean section rate in those countries. However, this does not mean that the caesarean operation was a completely safe endeavour in the rest of Europe. Catastrophic maternal mortality rates, mainly from infection which accompanied the technique, continued to be associated with caesareans. A German obstetrician, Oslander, is reputed to have said in 1805:

*"One should allow the patient to draw up her will and grant her time to prepare herself for death before the operation"* (Allison, 1987, p.546).

It appears that a difference in success rates was also found between those operations carried out in cities and those performed in rural areas. Tyler Smith (1856) believed that the operation had:

*"never been performed successfully in this metropolis"* (London).

He stated that:

*"In the great capitals, London, Paris, and Vienna, the mortality is far greater than in other places"* (Tyler Smith, 1856, p.639).

It appears that he may have been correct. Budin (1876) recorded a mortality rate of 100% in Paris, that is, no successful caesareans performed between 1787 and 1875 (Newell, 1921, p.5). Spath (1877) reported similar findings in Vienna (Newell, 1921, p.5). Tyler Smith's explanation for this anomaly between town and country was differences in the quality of the air:

<sup>1</sup> See discussion on 'The Role of the Church' p.8.

*"it is probable that a good air does more than the most skilful surgery"* (Tyler Smith, 1856, p.641).

However a more plausible explanation is that women in the cities were more likely to be operated on in hospitals where, at that time, it was a more risky endeavour due to the fact that instruments were not sterilised and antiseptic principles were not strictly adhered to. Consequently mortality rates following caesareans were much higher in the hospitals at that time (Kayser in Tyler Smith, 1856, p.639).

### Infant Mortality

It was suggested that the caesarean section was resorted to for the safety of the child more frequently than for that of the mother (Tyler Smith, 1856, p.639)<sup>1</sup>. Tyler Smith (1856) suggested that the performing of the operation in the hope of saving the child was misguided as:

*"the statistics of the operation demonstrate beyond question that the amount of foetal is almost equal to that of the maternal mortality"* (Tyler Smith, 1856, p.639).

However the data quoted by Tyler Smith, whilst not demonstrating a good prognosis for the infant, did not support this argument as *Table 1.2* demonstrates:

Table 1.2

#### Maternal and Infant Mortality from Caesarean Section by the Mid 1800s

Source	Maternal Mortality	Infant Mortality
Churchill*	71%	46%
Merriman*	92%	57%

---

(\* from Tyler Smith, 1856, p.639).

From the 77 cases recorded by Radford (1865), where the maternal

<sup>1</sup> *Historically this is certainly the case when considering early civilisations' emphasis on post-mortem caesareans and the Catholic Church's dictum of sacrificing the mother in order to baptise the child.*

mortality was 86%, 78 infants were extracted (including one case of twins), 46 (59%) of the infants survived and 32 (41%) died. So it seems that the outcome of the caesarean operation was, on the whole, more favourable for the infant than it was for the mother. Radford claimed that nearly all of the infants that did not survive were dead before the operation and it was his opinion that more infants might have been saved if the caesarean section had been performed earlier (Radford, 1865, p.7).

#### A Royal Catastrophy

The event of a royal birth in 1817 appears to have unwittingly furthered the cause of caesarean section in this country. Sir Richard Croft attending the labour of Princess Charlotte allowed an obstructed labour to continue in preference to using forceps or dismembering the heir to the throne of England. Fearing the death of the Princess from a caesarean section, Sir Richard did nothing. The infant was stillborn, the Princess died, and three months later Sir Richard shot himself (NIH, 1981, p.52). These events had major historical impact, apart from bringing Queen Victoria to the throne, they marked an important turning point away from 'ultra-conservatism' in obstetrics, and could be seen by the more sceptical as a justification for the attitude 'when in doubt - operate!'

#### The Debate Over Caesareans in Britain and France

The British obstetricians were often critical of their European counterparts for carrying out caesareans unnecessarily. A French doctor in 1829 commented that when the smallest diameter of the pelvis was nearly 24 inches the child must be alive and the decision had to be taken whether to follow the English and destroy the infant or rather to give it life while exposing the mother to great danger. The French generally took the latter position while one English commentator said "*Pity the poor French women we say*" (Young, 1944, p.74). However, it would be wrong to assume that the French doctors never performed embryotomy, for in 1849 several cases were reported where it was tried before a caesarean was carried out (Young, 1944, p.78). The British obstetricians were much more conservative in their estimations of pelvic contraction that would indicate the necessity for the caesarean operation than their European counterparts. However, reports of the

exact degree of pelvic deformity which would indicate a caesarean to British obstetricians varied considerably. After reviewing the evidence from 1822 to 1862 Young (1944) commented:

*"The highest authorities in Great Britain at this time fixed the degree of pelvic contraction in which the dimensions varied from 3-3½ inches in the long diameter as the lowest limit below which delivery by embryotomy could be performed, and below which it was always necessary to perform a caesarean"* (Young, 1944, p.76).

An estimation which puts the British practitioners more in line with their counterparts in the rest of Europe. Reports from other sources demonstrate a much more restricted practice amongst the British. Churchill (1856) suggested that only when the antero-posterior diameter of the brim was not more than 1½ inches was there no recourse but the caesarean operation. A Dr. Rigby considered the operation unavoidable only when the child could not be extracted 'piecemeal' (*Sic*) through the natural passages but did not give any positive measurements which would justify the operation in his opinion (Tyler Smith, 1856, p.640).

#### The Debate Begins in Britain

By the mid 1850s an important debate had begun amongst British obstetricians over the propriety of performing the caesarean operation in the light of the extremely high maternal mortality rate associated with the procedure. In order to open the discussion on the causes of failure of the operation and to ascertain whether it was possible to improve the outcome for the mother, Dr. Charles West reported a case at a meeting of the Royal Medical and Chirurgical Society on 28th January, 1851. The case included details of a caesarean operation from which the patient did not fully recover and died four days later (Lancet *The*, 1851a, p.152). Dr. West reported a maternal mortality rate from the operation of 63% from recorded cases since 1750 but went on to estimate that the rate should in fact be much higher as maternal mortality rates from caesarean carried out in hospitals in this country were 85.4% or 87.5% and that abroad they were 79% (Lancet *The*, 1851a, p.152). Dr. West went on to report only 5 successful cases of caesarean section in Great Britain since 1821 (Lancet *The*, 1851b, p.210).

Dr. West's speech aroused great controversy within the Society. A response to it from Dr. Robert Lee provided a good example of opinion amongst British Obstetricians at that time. Dr. Lee quoted from Mauriceau (1681) when he said that there were very few, if any, cases of difficult labour, in which an experienced accoucheur would fail to extract the child, dead or alive, whole or in pieces, without resorting to the caesarean operation. Agreeing with this view, Dr. Lee stated that he had never met a case of distortion of the pelvis, however great, where he had not succeeded in completing the delivery with the perforator and crochet (Lancet The, 1851a, p.153). Thereby highlighting the British tendency to favour modes of delivery that were destructive to the infant. However, Dr. Lee's contention was that induction of premature labour was preferable to caesarean section saying that:

*"It is altogether unaccountable that 39 years should have passed away after the safety, efficacy, and morality of inducing premature labour should have been demonstrated, that the practice should have remained almost unnoticed"* (Lancet The, 1851a, p.153).

Dr. Lee continued to say that if in all cases of distortion of the pelvis, premature labour were induced at about the mid period of pregnancy, or as late as the sixth month, the caesarean operation would never be necessary. His opposition to the operation was based on his contention that in British midwifery no single well-authenticated instance was on record of a mother recovering after the performing of a caesarean operation (Lancet The, 1851a, pp.154-5). Being totally opposed to the operation he stated:

*"This rage for cruel and bloody operation has spread far and wide, and attempts are being made on all sides of this country, at the present moment, to pervert and corrupt the sound and fundamental doctrines of English midwifery. My conscience will not permit me to remain a silent witness of such abominations"* (Lancet The, 1851a, p.155).

In closing his speech, Dr. Lee recounted the case of a woman in Cupar (Fife) who in 1847:

*"escaped from the horrors of the caesarean operation".*

The patient was a 34 year old woman with great distortion of the pelvis. It was decided by Dr. Simpson and three other practitioners that a caesarean section would be necessary. When labour commenced, Dr. Simpson was called from Edinburgh, some 30 miles away. But on arriving in Cupar, Dr. Simpson said:

*"we were surprised to hear that the patient was delivered, and our surprise was only increased by learning that no kind of instrumental aid had been required".*

On announcing this at the meeting, Dr. Lee sat down:

*"amidst the enthusiastic cheers of the Society, and loud roars of laughter from all sides" (Lancet The, 1851a, p.155).*

The debate was adjourned until february 11th, 1851, at which time the Society experienced one of its most crowded meetings with many members being turned away because of lack of space. At the meeting, Dr. Murphy took exception to Dr. Lee's speech in the previous month, and protested against the principle of personal attacks which he felt had been demonstrated so enthusiastically at the end of the last meeting. He went on to state that Dr. Lee's account of the caesarean proposed by Dr. Simpson had not contained the full facts. The woman in question suffered from severe deformity of the pelvis and could not have delivered normally but for the fact that the child had been dead for some time in utero and was only able to pass through the pelvic opening because of its rather fluid and decomposed state (Lancet The, 1851b, p.206). Dr. Murphy went on to reiterate West's original question and redirect the attention of the Society to the possibility of improving the outcome of caesarean section for the mother (Lancet The, 1851b, p.206). However, it appears that British practitioners were determined not to entertain such a discussion based on the assumption that the outcome for the mother was usually disastrous and destruction of the child as an attempt to save the mother preferable in most cases. Dr. Ashwell insisted that:

*"premature labour, ... craniotomy, and the dismemberment of the child, with all their difficulty and delay, were far preferable to delivery by the Caesarean section" (Lancet The, 1851b, p.207).*

### British Pro-Caesareanists

Although in a notable minority, supporters of caesarean section were to be found amongst the obstetricians of nineteenth century Britain. For example, G.S. Bedford (1844) and also Thomas Radford (1865) who became one of the champions of caesarean section by highlighting the barbarous nature of craniotomy. Radford was one of the most influential commentators on caesarean section during that time. He wrote:

*"To my knowledge, there has been no subject connected with medicine which has created more bitterness of feeling and animosity" (Radford, 1865, p.1).*

In his book 'Observations on the Caesarean Section and on Other Obstetric Operations', Radford recommended the caesarean section for cases of contracted pelvis and also for blockage, for example, by certain types of tumour that are not movable. He believed that:

*"The risk to infants in Caesarean births is not much greater than that which is contingent on natural labours, provided correct principles of practice are adopted" (Radford, 1865, p.8).*

Regarding the high maternal mortality rate which accompanied caesarean section, Radford pointed to the unfavourable constitutional state of women prior to the performance of the operation and therefore recommended the performance of all obstetric operations, especially caesarean section, early in labour, stating that the danger from the operation increased with the duration of the labour (Radford, 1865, p.11). Similarly, Radford pointed out that the duration of labour exercised very great influence upon the condition of the infant, particularly after the membranes had ruptured. Thus:

*"the deaths of the infants which have occurred in Caesarean cases are generally to be attributed to the long continued and violent pressure which they have endured during labour".*

However, Radford did point out that another cause of infantile death which was related to the caesarean operation specifically, that was,



the seizure of the neck of the infant during extraction through the incised opening of the uterus (Radford, 1865, p.17).

In defence of the caesarean operation Radford proposed that obstetricians who performed the operation were simply imitating nature. He went on to say that when the usual passage is blocked, the 'natural' solution is the yielding of the uterine tissue thus making an opening for the escape of the foetus, followed by the ulceration in the abdomen whereby part after part of the infant passes through the opening, until the whole contents of the cyst are discharged. An extremely slow and hazardous process. Thus the caesarean operation is merely an imitation of nature although by a much more "*safe and an expeditious plan*". On the subject of post-mortem caesareans, Radford stated that they were necessary in order to do justice to the infant which was likely to be alive (Radford, 1865, p.18).

It was the influence of Radford amongst the medical profession that began the shift in position towards a more accepting climate for the caesarean operation (Young, 1944, pp.75 and 78). Even so, for late nineteenth century Britain the caesarean section continued to be a fatal operation and therefore only performed occasionally on a living woman, usually when a craniotomy could not be performed, possibly because ovarian cysts prevented access to the infant, in other words, it would only be performed when everything else had been tried and failed (Newell, 1921, p.3). It is not surprising therefore that the first successful caesarean operations to be carried out in hospitals in the Western world did not occur until the end of the nineteenth century. The first one was performed in Dublin's Rotunda Hospital in 1889, followed by Boston's Lying-In Hospital in 1894, then the Saint-Antoine Hospital in Paris in 1896 and finally the Lille Charite Hospital in 1897 (Shorter, 1982, p.162).

#### The Rest of the World?

Given the ethnocentricity of historical data, information relating to the performance of the operation in, for example, the third world, is scarce to say the least. However, the operation is recorded to have been performed at Katura, Uganda, in 1879. This event constitutes the first suggestion of the early development of the caesarean section by

what were considered to be 'uncivilised' people. Robert W. Felkin (1884), a medical missionary, who was present for the surgery, described what he saw in great detail with illustrations. The patient was a twenty year old primiparous woman. Felkin noted that before the operation the practitioner anaesthetised the patient with banana wine which he then used to cleanse his hands and the patient's abdomen, thus displaying considerably more knowledge of asepsis than his so-called 'civilised' counterparts who only saw fit to wash their hands after the operation had been performed. The patient was tied to the bed for the operation which Bishop (1960) related thus:

*"After first pronouncing an incantation he (the surgeon) gave a shrill yell and then made a quick incision, cutting through the abdomen and through the wall of the uterus. Bleeding points were touched by an assistant with a red-hot iron. The child was taken out quickly and handed over to an assistant. The cord was cut and the after-birth was removed by hand. The womb was not sutured, but the abdominal wound was covered temporarily with a porous grass mat, and the patient was raised to let the fluid out. Then the wound was closed with seven thin nails and string, very much as a chicken is trussed with skewers and string. The child was alive and the mother made a perfect recovery, her wound being healed on the eleventh day" (Bishop, 1960, p.27).*

The skill and competence with which the operation in Katura was performed and the precision with which every step of the operation was carefully planned in advance suggests that the technique had been under development for a long time and therefore had been practiced by 'uncivilised' races with success, possibly for centuries, whilst it remained a most fatal, last resort, operation amongst 'civilised' nations (Newell, 1921, p.3).

## Chapter Four

### ALTERNATIVES TO THE CAESAREAN OPERATION

---

#### CAESAREAN VERSUS OTHER TECHNIQUES

##### 1) Caesarean versus Symphyseotomy

During the eighteenth century surgeons began to experiment with other forms of surgical intervention to aid labour. Thus in 1777, the poor success rate of the caesarean operation meant that it was almost entirely superseded by the development of a new operative delivery technique (Newell, 1921, p.5). The operation 'symphyseotomy' was introduced by a French surgeon, M. Sigault. His earliest proposal for the operation, suggesting that it should be tested on animals and condemned criminals, was not favourably received. The later proposal, which was successfully tested on a patient, consisted of cutting through the skin in the direction of the pubic bone and then dividing the junction of the cartilaginous symphysis with the knife. The knees of the patient which were being held firmly by assistants were then gently forced apart in order to separate the bones, thus making room for the delivery of the child under the strength of the uterine contractions.

At the time, it seemed like a good idea.

*"The section of the symphysis pubis, it was thought, would banish for ever the use of crotchets, of perforators and other destructive instruments, as well as premature delivery and the cesarean operation" (Baudelocque, 1801, pp. 48-9).*

Subsequent to his initial attempt, Sigault operated on four other women, one of whom died. Although Sigault was the first to propose and successfully perform the operation it was M. Le Roy, an assistant at the operation, who was the first to publish an account of it. However, opposition to the operation was strong. In 1803, Hamilton wrote:

*"from the history of between 30 and 40 cases, where the division of the symphysis pubis was performed on the continent, and one case in Great Britain, we consider ourselves authorised to condemn that operation in every view, and advise that it be had recourse to in no case whatever"* (Hamilton, 1803, p.333, original emphasis).

Up to 1830 there had been 41 operations with 14 maternal and 28 foetal deaths - a maternal mortality considerably less than that of caesarean section at that date (Routh, 1911, p.9). However, as time went on Sigault became less confident about the procedure and before his death he recommended caesarean section instead of symphyseotomy for cases of contracted pelvis (Young, 1944, p.50). Early commentators have suggested that the use of the Symphyseotomy fell into disrepute allowing the use of the caesarean section to flourish (Newell, 1921, p.5).

This is not to say that Symphyseotomy is no longer practiced. The procedure has been modified somewhat with the suggestion that if the incision is made during labour, the mere pressure of the baby's head will divide the two parts of the symphysis resulting in more space in the pelvis and a vaginal delivery, rather than the bones being forced to separate by assistants pressing apart the legs of the woman (Engelkes and van Roosmalen, 1992, p.791). Similarly, one of the main reasons why the operation was denounced as 'obsolete' was because of associated complications such as risk of damage to the urethra. It has been suggested that this can now be prevented by the pre-operative insertion of a urinary catheter and the moving of the catheter to the side whilst the incision in the symphysis is made (Engelkes and van Roosmalen, 1992, p.791).

As recently as 1992 the Symphyseotomy was recommended as preferable to caesarean section particularly in certain cultures where failure to deliver vaginally may lead to stigmatisation (Engelkes and van Roosmalen, 1992, p.792). The operation continues to be used in some countries and the Maternity Report of St. Lukes Hospital, Anua, Nigeria, reveals that in 1991 a total of 20 symphyseotomy operations were carried out (Francome et al., 1993, p.19). It has further been proposed that in some cases of obstructed labour due to cephalopelvic

disproportion (CPD), Symphyseotomy is a valuable substitute for caesarean section, as there is less mutilation and ultimately it obtains the same, or even faster result, and often prevents a subsequent obstructed labour. The suggestion is that if safe precautions are taken, such as the insertion of a urethral catheter, and pelvic fixation during and immediately after delivery to prevent orthopaedic disorders leading to serious walking problems, complications are minimal, chances of future safe deliveries better as the pelvic aperture will have been permanently widened and there is no risk of future scar rupture (Engelkes and van Roosmalen, 1992, pp. 791-2).

#### 11) Caesarean versus Craniotomy

During the first half of the nineteenth century caesarean section became more popular with a consequent rise in rates for most of Europe. Britain however remained slow to catch on, obstetricians preferring the techniques more destructive to the child such as craniotomy, judging the caesarean section as unjustifiably putting the mother's life at risk. This is not surprising considering that the maternal mortality rate was 89% in 1866 and 84% in 1876 (Routh, 1911, p.6). Routh suggested that it was not preference for the destruction of the child that lead British obstetricians to rely on craniotomy but rather the lack of a viable alternative for cases of contracted pelvis (Routh, 1911, p.6).

The main bone of contention between British obstetricians and their European counterparts was the degree of pelvic contraction and much argument ensued over the actual degree of contraction that should indicate the necessity for caesarean section. Thus the British obstetricians used craniotomy in preference to abdominal delivery for cases in which European practitioners would have performed a caesarean.

Craniotomy is a difficult process by which the head of the infant is crushed in the womb in order to make it small enough to pass through

*, Cephalopelvic disproportion (CPD): disproportion between the space in the pelvic girdle and the size of the infant that has to pass through it. Either because the pelvis is too small (e.g. contracted pelvis), the infant is too large, or both.*

*"from the history of between 30 and 40 cases, where the division of the symphysis pubis was performed on the continent, and one case in Great Britain, we consider ourselves authorised to condemn that operation in every view, and advise that it be had recourse to in no case whatever"* (Hamilton, 1803, p.333, original emphasis).

Up to 1830 there had been 41 operations with 14 maternal and 28 foetal deaths - a maternal mortality considerably less than that of caesarean section at that date (Routh, 1911, p.9). However, as time went on Sigault became less confident about the procedure and before his death he recommended caesarean section instead of symphyseotomy for cases of contracted pelvis (Young, 1944, p.50). Early commentators have suggested that the use of the Symphyseotomy fell into disrepute allowing the use of the caesarean section to flourish (Newell, 1921, p.5).

This is not to say that Symphyseotomy is no longer practiced. The procedure has been modified somewhat with the suggestion that if the incision is made during labour, the mere pressure of the baby's head will divide the two parts of the symphysis resulting in more space in the pelvis and a vaginal delivery, rather than the bones being forced to separate by assistants pressing apart the legs of the woman (Engelkes and van Roosmalen, 1992, p.791). Similarly, one of the main reasons why the operation was denounced as 'obsolete' was because of associated complications such as risk of damage to the urethra. It has been suggested that this can now be prevented by the pre-operative insertion of a urinary catheter and the moving of the catheter to the side whilst the incision in the symphysis is made (Engelkes and van Roosmalen, 1992, p.791).

As recently as 1992 the Symphyseotomy was recommended as preferable to caesarean section particularly in certain cultures where failure to deliver vaginally may lead to stigmatisation (Engelkes and van Roosmalen, 1992, p.792). The operation continues to be used in some countries and the Maternity Report of St. Lukes Hospital, Anua, Nigeria, reveals that in 1991 a total of 20 symphyseotomy operations were carried out (Francome et al., 1993, p.19). It has further been proposed that in some cases of obstructed labour due to cephalopelvic

disproportion (CPD), Symphyseotomy is a valuable substitute for caesarean section, as there is less mutilation and ultimately it obtains the same, or even faster result, and often prevents a subsequent obstructed labour. The suggestion is that if safe precautions are taken, such as the insertion of a urethral catheter, and pelvic fixation during and immediately after delivery to prevent orthopaedic disorders leading to serious walking problems, complications are minimal, chances of future safe deliveries better as the pelvic aperture will have been permanently widened and there is no risk of future scar rupture (Engelkes and van Roosmalen, 1992, pp. 791-2).

#### 11) Caesarean versus Craniotomy

During the first half of the nineteenth century caesarean section became more popular with a consequent rise in rates for most of Europe. Britain however remained slow to catch on, obstetricians preferring the techniques more destructive to the child such as craniotomy, judging the caesarean section as unjustifiably putting the mother's life at risk. This is not surprising considering that the maternal mortality rate was 89% in 1866 and 84% in 1876 (Routh, 1911, p.6). Routh suggested that it was not preference for the destruction of the child that lead British obstetricians to rely on craniotomy but rather the lack of a viable alternative for cases of contracted pelvis (Routh, 1911, p.6).

The main bone of contention between British obstetricians and their European counterparts was the degree of pelvic contraction and much argument ensued over the actual degree of contraction that should indicate the necessity for caesarean section. Thus the British obstetricians used craniotomy in preference to abdominal delivery for cases in which European practitioners would have performed a caesarean.

Craniotomy is a difficult process by which the head of the infant is crushed in the womb in order to make it small enough to pass through

, *Cephalopelvic disproportion (CPD): disproportion between the space in the pelvic girdle and the size of the infant that has to pass through it. Either because the pelvis is too small (e.g. contracted pelvis), the infant is too large, or both.*

the vaginal canal. This caused many problems as may be seen by some of the recorded case histories. J. Hamilton, for example, described in 1840 how in a woman with the width at the brim of only 1½" he performed a craniotomy at midnight. He started his efforts to extract the child at 9.30 the next morning but did not succeed until two o'clock in the afternoon. The woman recovered and Hamilton was "*carried home in a sedan chair exhausted*" (Young, 1944, p.77).

Craniotomy was performed by the use of a variety of instruments, for example, penknife, scissors, pincers and various types of hook, basically anything that was available to the practitioner at the time. If the head was not the part of the body presenting then the operation was called an embryotomy. There was continuing debate about the rectitude of killing the 'about to be born' child. Many argued that it had no sensation of feeling or pain (Young, 1944, p.79). In 1838 S. Hare published a letter in *The Lancet* in which he brought to the attention of the medical profession an instrument called the 'Osteotomist' or 'Bone-Pliers' which he described as the combined principles of a punch and a pair of scissors. The instrument was designed for the purpose of breaking up the infant so that it could be delivered through the natural passages. Hare stated that the Osteotomist was:

*"a power by which any portion of the foetal skeleton presenting at the brim of a contracted pelvis may be broken down into small fragments of about half an inch in diameter, with the most perfect impunity to the tissues of the mother"* (Hare, 1838, p.702).

Given the higher caesarean rate in the rest of Europe, it is not surprising that craniotomy was correspondingly less common there. In Britain the operation occurred once in 219 deliveries compared to once in 1,205 deliveries in France and was even more rare in Germany with one in 1,944 deliveries. It appears that almost any method was preferable to the British obstetricians of that time, rather than resorting to caesarean section and viewing the actions of the European obstetricians as more barbaric than their own! However, it was a difficult procedure and the obstetrician had to gather all the pieces together to make sure that nothing had been left inside the woman.



There were strong critics.

Many opposed craniotomy because of the mortality rate that accompanied it. The editor of The Lancet, Thomas Wakley, said in 1838 that:

*"the operation of crushing the child's head and extracting the body piecemeal, is as fatal a proceeding as the Caesarean operation itself"* (Wakley, 1838, p.703).

Churchill, in 1842, gave the maternal mortality from craniotomy as about one in five. To make a comparison he collected data for 321 operations since 1750 and said that the majority of women (172) died (Churchill, 1842, in Routh, 1911, p.6). However, even such analysis did not undermine the essential fact that at the time maternal mortality was lower for craniotomy than caesarean section which in Britain was over 80% (Churchill, 1842, in Routh, 1911, p.6). Such results were deemed to justify the position of the British obstetricians.

Despite the dominant British view being in favour of craniotomy there were a few in Britain who also became concerned with the loss of foetal life. In recounting the case of a caesarean that he had performed due to a contracted pelvis where it was evident that the head of the infant could not pass through the pelvic opening, F. Vanderfuhr (1826) stated that he viewed craniotomy as a *"shocking resource"*. He knew the child to be alive because he had felt its movements as had the mother and therefore saw no way forward but to perform a caesarean section (Vanderfuhr, 1826, p.388). Bedford stated in 1844:

*"The man who would wantonly thrust an instrument of death into the brain of a living foetus, would not scruple, under the mantle of night, to use the stiletto of the assassin"* (Bedford, 1844, in Young, 1944, p.80).

In 1865, Radford, calculated, on the evidence available to him, that 2,861 infants were being destroyed annually by this operation and suggested that this figure was an extremely conservative estimate (Radford, 1865, pp.44-5).

A determined opponent of craniotomy, Radford argued that if craniotomy was used certain great men (*Sic*) would not have been born (an argument that was to be repeated later by opponents of birth control):

*"Suppose the head of Shakespeare had been opened, what would have been the loss to society?"* (Radford, 1865, p.48).

In addition he commented:

*"It is one thing to deliver the woman, and another to do so safely. It is much to be deplored, that this operation is still permitted to be so unconditionally performed"* (Radford, 1865, p.48).

Many commentators objected to the use of craniotomy when the foetus was living and viable. Routh stated in 1911 that:

*"as craniotomy necessarily involves foetal death, it is to be hoped that the time is not far distant when the increasing safety of Caesarean section will lead to its abolition when the child is alive"* (Routh, 1911, p.8).

In Catholic countries the foetus was often given a very high status amongst theologians which meant that craniotomy could not be recommended. However, the views of opponents of craniotomy including eminent physicians such as Radford and authorities such as the Catholic Church did not hold much appeal amongst the medical fraternity, and the clear view amongst British obstetricians was that craniotomy was preferable as the caesarean was such a dangerous operation that it must only be a last resort.

### iii) Caesarean versus Forceps

Forceps, or 'high forceps' as they were known at the time, were in popular use as an aid to difficult deliveries during the nineteenth century. Once again there were proponents on both sides of the debate. For example, Radford (1865) claimed that:

*"This instrument most justly takes a high position in obstetrics, because its sole employment is for the preservation of life. It is intended, within a certain*

*range of protracted labour, to supersede craniotomy. In the hands of a discreet and judicious practitioner, it is both a safe and a very powerful instrument. Before its introduction into practice, whenever turning could not be performed, the child was doomed to destruction by craniotomy" (Radford, 1865, p.27).*

Further, Radford stated that:

*"There are no statistics published which afford any truthful information either as to the frequency of the application of this instrument, or as to the mortality of those women who have been delivered by it" (Radford, 1865, p.29).*

He claimed that he had used forceps many times and never had a death as a result of their application (Radford, 1865, p.29).

The sanction of forceps over craniotomy being established, the debate over the relative benefits of forceps as opposed to caesarean section continued. In 1879, Harold Williams attempted to prove statistically that delivery by forceps was much more dangerous in terms of fatality to the mother than caesarean section (Young, 1944, p.86). However, doubts remained and the debate over the relative benefits of forceps as opposed to caesarean section still continues. The latest evidence shows that the use of forceps has diminished as caesareans have become safer (Francome, 1990, p.13).

#### iv) Caesarean versus Induction

Induction of premature labour has been called an *"essentially British procedure"* (Routh, 1911, p.3). In 1756 a consultation of London obstetricians established it as the ethically correct treatment for delivering cases of contracted pelvis. Over a hundred years later Robert Barnes stated that:

*"English Midwifery ... claims the honour of introducing and establishing an operation which had probably been the means of saving more lives of mothers and children than any other operation we know of" (Barnes, 1862, in Routh, 1911, p.3).*

In 1851 a Dr. Lee argued in favour of induced labour over caesarean section saying that he regarded it as the most important improvement ever introduced into the practice of midwifery. He stressed that the value of induction of premature labour was that both mother and child were preserved. He said that during the previous 55 years the operation had been successfully performed in a great number of cases and the lives of many children saved by it. Quoting statistics from his colleague, Dr. H. Davies of Brighton who had performed the operation 50 times, he said that 29 children were born alive and all mothers survived. Lee himself had performed the operation as many as 50 times with success including the case of one woman with a greatly distorted pelvis on whom he had performed the procedure 12 times (Lancet *The*, 1851a, p.154).

Despite Lee's claims, Radford (1865) suggested that induction of premature labour was never intended to supersede the caesarean section but, rather, to prevent craniotomy (Radford, 1865, p.35). However, the induction of abortion was proposed for the purpose of superseding the necessity of the caesarean section. According to Radford, in general, by the time induction of labour was proposed, the woman had passed the period when a caesarean could be advantageously performed. Radford objected to this situation stating that induction was not as safe a technique as it was commonly presented, and in some cases it had caused the death of the mother (Radford, 1865, pp. 42-3). Therefore, Radford advocated the caesarean section instead. Yet by 1911, Routh still claimed induction of premature labour to be a 'favourite' method of dealing with cases of contracted pelvis in the United Kingdom (Routh, 1911, p.3).

#### v) Caesarean versus Pelvitomia Nova

Another alternative to the caesarean operation, the 'Pelvitomia nova', was suggested by John Aitken of Edinburgh in 1882. The aim of the operation was to make a segment of the pelvic girdle movable to allow delivery of the child in cases of extreme distortion or contraction of the pelvis. He tested this technique for the first time on a woman in Italy, both mother and child died (Young, 1944, p.48). Little reference has been made to the operation since that time.

## Chapter Five

### SELF-INFLICTED CAESAREANS

---

#### 'SISTERS WERE DOING IT FOR THEMSELVES!'

Throughout history, many women have performed the caesarean operation on themselves. Although presumably unaware of surgical procedures, these operations were performed out of desperation. In the majority of such cases the outcome was not good for the infant, often the child would die before or during the complicated labour, or the baby died due to mutilation from the surgery or suffocating in the amniotic fluid which would flood the abdomen during the operation.

The earliest known case of a woman performing the operation on herself was recorded to have occurred in 1769 in the West Indies. Mosely (1795) suggested that the woman had carried out the operation because of impatience (*Sic*) with the pain of a prolonged labour, although, of course, this explanation is that of the observer and not the woman herself (Mosely, 1795, in Baudelocque, 1801, p.66).

On January 29th, 1822, a fourteen year old woman performed the operation on herself, constituting the first recorded case of such an event in the United States. The woman was carrying twins and delivered herself lying in a snowbank. On delivery of the first baby she buried it in the snow. Doctors were called in to remove the second child and to attend to the wound. The patient survived but the fate of the children is unknown (McClellan, 1822, in Young, 1944, p.13), considering the conditions of the birth it is unlikely that either child lived.

In 1876, a woman in labour for 3 days performed a caesarean section, which she had heard was possible, on herself to obtain relief from abdominal distension and violent pain. The child did not survive, although it is possible that it was dead before the operation as the woman reported that foetal movements had ceased. Her wound was

treated by a physician and she made a full recovery (Von Guggenbunrg, 1876. in Young, 1944, p.14).

In Turkey, in 1879, a woman cut open her abdomen and uterus with a razor after being in labour for over 36 hours and not progressing. The wound was then sewn up by a neighbour and both mother and child apparently survived (Young, 1944, p.13).

Madigan (1884) reported a case of a woman who cut open her abdomen and uterus with a razor and delivered a male child. According to Madigan, neighbours who found her with the placenta and dead child lying beside her were so frightened that they ran away. By the time the clergyman arrived the mother was also dead (Madigan, 1884, in Young, 1944, p.13).

In 1886. The Lancet recorded the case of a twenty-three year old single woman, seven months pregnant, who was talked about and faced a great deal of questioning from her family as to the reasons for her increase in weight. Fearing the shame which accompanied the bearing of an illegitimate child in Italy at that time, she cut open her abdomen with a sharp carving knife and brought out the baby in pieces. In the evening she took a cloth soaked in blood the few miles to her sister's house to 'prove' she had menstruated. Her subsequent illness led to medical attention and the operation being recorded in the medical records. The Lancet wrote to the doctors involved in the case and received confirmation and further details (Baliva and Serpieri, 1886, pp.890 and 994).

From the limited evidence available on self-inflicted caesareans it appears that women 'doing it for themselves' in history was actually safer than the so-called 'professional' procedures. An American medical historian, Harris, wrote in 1879 that a woman in labour had a 50% chance of surviving a caesarean operation if she performed it herself compared to a 10% reported survival rate if attended to by a New York surgeon. This is quite possible considering that the woman at home was more likely than the hospital surgeon to be using clean implements and was less likely to be using equipment that has just been used to carry out a postmortem or to perform surgery on a patient with a fatal infection. Harris later recorded a 66% survival and recovery

rate for women performing the operation on themselves compared to a rate of 37.5% for American physicians up to 1888, and 14% for their British counterparts (Harris, 1888, p.150).

This phenomena is not entirely unknown in the twentieth century. In 1901 a woman at full term in her fifteenth pregnancy is said to have self-performed the operation believing herself to be about to die from tuberculosis. Her wound was sewn by her thirteen year old daughter and both mother and child recovered (Young, 1944, p.17). Further, a woman is reputed to have admitted herself to hospital in 1913 with an abdominal wound which was found to contain remnants of placenta. The child had apparently been allowed to drop into a bucket of water in which it drowned. The woman recovered (Young, 1944, p.18).

## Chapter Six

### DEVELOPMENT OF THE OPERATIVE TECHNIQUE

---

#### DEVELOPMENT OF THE OPERATIVE TECHNIQUE

Despite improvements in the operative technique for caesarean section in the early nineteenth century, it was not until around the 1880s that the surgical technique for the operation began to be reviewed and defined, mainly by German doctors. Before that time the exact technique of each operation could have been as individual as the surgeons performing them. For example, in 1805 a German obstetrician, Oslander, devised a caesarean operation which involved keeping a hand in the vagina during the abdominal extraction of the infant (Allison, 1987, p.546). However, the increasing documentation of the most successful techniques, coupled with the invention of chloroform anaesthesia by Simpson of Edinburgh in 1847 and the ratification of antiseptic principles in surgery in 1867 by Lord Lister (Routh, 1911, p.15) meant that caesarean section became a more feasible option.

However, as highlighted above, this option was not taken up immediately, other emergency approaches such as forceps, craniotomy or symphyseotomy were used in preference to the caesarean. This is not surprising considering that the caesarean section operation during the nineteenth century continued to carry an extremely high maternal mortality rate. Radford (1865) stated that:

*"The statistics of the results of the caesarean section, especially as concerns the mothers, are highly unfavourable"* (Radford, 1865, p.7).

One of the greatest risks to women from the caesarean operation during the nineteenth century was haemorrhage or infection (Newell, 1921, p.4).

*"In many cases no attempt at repair or the formation of new tissue takes place; in others actual sloughing and loss of*



substance occurs, the wound gaping widely" (Tyler Smith, 1856, p.639).

#### The Procedure for Caesareans

In a series of lectures which appeared in The Lancet in 1856, W. Tyler Smith gave details of the procedure for the caesarean section:

*"The temperature of the room should be raised, with a view to the prevention of peritonitis, and chloroform administered, unless some special contra-indication exists. The abdominal incision may be made in the direction of the linea alba, or it may be oblique or horizontal, according as the configuration of the abdomen is altered by deformity. The situation of the placental attachment should be avoided, if this organ be attached anteriorly. This may be learnt by auscultation before the operation is commenced. Great care is required in opening the peritoneum, so as to avoid wounding the intestines. The abdominal incision should be from eight to ten inches in length; and the uterine incision should be of nearly the same length. Some have advised that the liquor amnii should be evacuated before the commencement of the operation. When the amnion is punctured through by the uterine incision, care must be taken to let as little of the fluid as possible enter the peritoneal cavity. It is recommended to be removed carefully with pieces of sponge or a syringe. When this has been evacuated, the foetus is to be taken out, cautiously as in some cases the uterus has grasped the body or neck of the child at the wound, and rendered its extraction a matter of difficulty. The placenta is to be separated by the hand, and haemorrhage arrested by mechanical pressure, or the application of cold, the risk of peritoneal inflammation being the only objection to the latter. After the removal of the placenta, and the cessation of haemorrhage, all blood and fluid are to be carefully removed from the peritoneum, and the edges of the uterine and abdominal incisions brought together and maintained by sutures. The external wound is further to be dressed lightly with strapping and wet lint, and the whole supported by a many-tailed bandage, space being left for the exit of discharge. After the operation, large and continued doses of opium, with nutriment and stimulus in good quantity, appear to offer the best chances of recovery. Throughout, every care should be given to the avoidance of peritoneal irritation as far as possible; the escape of the bowels through the wound; and the suppression of haemorrhage" (Tyler Smith, 1856, p.641).*

Thus by the mid 1850s although some recognition of the risk of infection is evident there was no reference to antiseptic principles such as the scrubbing of the physicians hands or sterilisation of

equipment to be used in the operation.

However the exact procedure for each operation continued to vary according to the surgeon performing the operation, for example, it was not unknown for practitioners to suture the external wound in the early 1800s whilst some later practitioners would suture the uterine wound only and close the external wound with bandages or sticking plaster. Others saw fit to leave both wounds gaping. There were similar anomalies in the use of anaesthesia. In 1826, Vanderfuhr recounted a case of a caesarean he had performed where although no anaesthesia was used:

*"During the whole operation the patient was perfectly tranquil; she did not utter a single cry".*

But, he did unite the wound with sutures, strips of adhesive plaster, dry lint, compresses and a bandage (Vanderfuhr, 1826, p.388). Mother and child apparently survived.

#### The 'Porro' Operation

In 1876, Porro of Pavia, recognised that the greatest risk to the patient was caused by haemorrhage from the incision in the uterine walls and from the escape of infected lochia into the peritoneal cavity. He therefore advised amputation of the body of the uterus in order to lessen the dangers of haemorrhage and infection, in other words, he used a sterilizing technique whereby a partially complete hysterectomy was performed after the caesarean birth. Porro carried out the first successful operation using his new method on 21st May 1876. The woman had been under observations for 24 days and the operation was carried out seven hours into labour. Porro and his assistants washed their hands in a dilute solution of carbolic acid and administered chloroform to anaesthetise the patient. The mother and child survived. This procedure was followed by such an improvement in the results of the operation that it soon became very popular (Newell, 1921, p.5).

Despite the fact that Porro is usually credited with the discovery of this technique he was not, in fact, the first to use it. Storer of

Boston had used amputation of the uterus on a case of multiple fibroids of the uterus in 1868 but apparently did not realize the importance of the innovation and credit therefore went to Porro for bringing the procedure to the attention of the medical world (Newell, 1921, p.6).

When others tried the operation the results at first were mixed. In fact the next three women to be operated on using the Porro method died, but two children lived. Three out of the first four women operated on in the United States died, and four out of the first five in Britain. However, some places showed a remarkable improvement and none greater than the Vienna Lying-In Hospital, where in the previous one hundred years not a single woman had recovered. From 1877 to 1885 there were 27 Porro operations with nearly half (48%) of the women surviving. In the following three years there was a remarkable series of operations and out of 27 cases all except two of the women lived (Newell, 1921, p.5).

The first successful Porro operation to be performed in Britain was carried out by Dr. Clement Godson in 1884. He recounted the case in the British Medical Journal (BMJ) and listed 137 operations by others with a maternal mortality rate of 55.8% (Routh, 1911, p.15). Thus it was the Porro operation that was regularly adopted in England at that time. Harris (1888) advanced a number of reasons for the improved results of the Porro operation. These included:

- \* Carrying it out electively and not as a last resort.
- \* Operating early in labour.
- \* Rigid antisepsis.
- \* Washing all the blood out of the abdominal cavity.
- \* Antiseptic treatment of the stump (Harris, 1888, p.150).

There was some opposition to the operation on the grounds that it sterilised the woman. One of the most vehement arguments appeared in the American Journal of Obstetrics (AJO) where Schlemmer (1883) argued that the operation was against religious tenets and that men should not have marital intercourse with wives who had undergone it. In contrast the English writer Playfair (1886) said that many women needing caesareans suffered from rickets and came from the poorer parts of the

community suffering from ill nourishment. He continued to suggest the sterilisation may have been of benefit to the community (Schlemmer, 1883, and Playfair, 1886, in Francome et al., 1993, p.32). Others prophetically saw Porro's method as a transitory one and this is in fact what it became.

#### The 'Sanger' Method

The operation was revolutionised in 1882 by Max Sanger (1853-1903) who replaced the Porro technique with a process of closing the uterus in layers by the use of sutures or stitches. That was, to:

*"close the uterine wound by a system of deep (muscular) and superficial (peritoneal) sutures and so keep the uterine and peritoneal cavities shut off"* (Lancet The, 1891, p.885).

Prior to this development the uterine incision was not usually sutured for fear of leaving suture material in the peritoneal cavity (Holland, 1921a, p.349). Sanger did not make any grand claims about having invented a new method of operating, rather he painsakingly studied the developments and innovations of the operation, comparing success rates, and came to a conclusion which brought together the best of what had gone before (Young, 1944, p.136). For example, sutures had been first used by Lebas in 1769 but it was not until Sanger published an article describing his technique in 1882 that they came into general use (Newell, 1921, p.4). This was an important development in the history of the caesarean section because it meant that hysterectomy was not necessary and, as such, it became known as the 'conservative' or 'classical' caesarean section as opposed to Porro's 'radical' operation (Newell, 1921, p.6).

The first operation following Sanger's recommendations was carried out by G. Leopold in Leipsig on 25th May, 1882, the mother and child made a full recovery. However, the next two operations were not successful. It is surprising that Sanger himself did not carry out the operation according to his own suggestions until 4th December, 1884, when it was the tenth to be performed. Both mother and child made a good recovery (Francome et al., 1993, p.33).

Analysis of the first fifty Sanger operations up to 1887 showed that 70% of women survived compared to only 40% of the first fifty Porro operations (Harris, 1887, in Francome et al., 1993, p.33). Closer analysis of the data showed that of the first 50 operations, 33 were done in Germany, all but one of the children and all but four of the mothers survived. However, of 17 operations carried out in other countries only six mothers lived (Francome et al., 1993, p.33). This may in part be because in Germany the criteria for performing the operation had been relaxed but is probably also indicative of greater experience and skill.

In February 1889 Dr. Champneys of London drew attention to the value of Sanger's improved technique and described a successful case that he had performed in March 1888. In the next month Dr. Murdock Cameron of Glasgow had another successful case and in March 1891 he was able to publish a list of ten consecutive operations with maternal survival in nine cases. It has been said that Champneys' paper stemmed the tide which had been set in favour of Porro's radical operation towards a technique that was less mutilating for the mother (Routh, 1911, p.16).

#### The Lower-Segment Operation

It was at the time when Sanger was publicising his new technique that Kehrer first introduced the idea of using a lower uterine segment incision for the caesarean operation believing it necessary to permit the safe closure of the uterine wound thereby reducing the risk of haemorrhaging and infection (Young, 1944, p.115). This important modification to the operative technique meant that the caesarean section became less of a dangerous endeavour than was previously the case. An indication of this was published in The Lancet (6 January 1886). Dr. Playfair referred to the statistics of caesareans published by the French obstetrician M. Dufeilley which showed that where the operation was performed in favourable circumstances, 80% of women recovered compared to a success rate of 17% in unfavourable conditions. He commented that these were better results than had been obtained in England, but went on to suggest that even the small success rate of 11% was surprising considering the:

*"the semi moribund condition in which the patients generally had been found before the operation".*

However, he further concluded that the statistics:

*"at least prove that the caesarean section need not be the almost certainly mortal operation we were generally thought to consider it"* (Playfair, 1886, in Francome et al., 1993, p.33).

During the 1890s a liberalisation of attitudes towards the operation occurred. An article based on a meeting appeared in *The Lancet* entitled 'Modern Methods of Caesarean Section' in April 1891. This drew attention to the improvements in the operation brought about by Sanger whose results had originally been published in the United States in 1882 but were not reported in either *The Lancet* or the *BMJ*. The technique, however, was finally introduced in 1886 (*Lancet The*, 1894, in Francome et al., 1993, p.34).

It seems that it was around 1890 that instruments began to be sterilised. Dr. Lewers was reported in the *BMJ* in 1911 as saying:

*"He could remember when generally the instruments were not boiled in surgical practice; this was not much more than 20 years ago, if, indeed, it was quite so long"* (*BMJ*, 1890, in Francome et al., 1993, pp.34-5).

In 1892 a meeting was reported in *The Lancet* where Dr. Murdoch Cameron described his experience of performing caesareans. He had carried out fifteen, only two of the women had died and in neither case was their death due to the operation. Demonstrating that the lower segment incision was not in general use in Britain in the late nineteenth century, he described his procedure as follows:

*"If labour has not set it should be induced, then a five or six inch incision in the abdominal wall ought to be made. The uterus is not brought out until the foetus has been extracted. Any rotation is carefully rectified, and a small incision made in the median line until the membranes (which must not be ruptured) are reached. Next the incision is enlarged upwards and downwards, and the child extracted. The uterus is now brought out and thoroughly emptied of placenta and membranes. The edges of the uterine incision are everted by an assistant and deep carbolised silk sutures inserted, with, if necessary a few cat gut ones"* (Cameron, 1892, p.594).

### Further Developments in the Operative Technique

Frank of Cologne proposed a new operative method in 1907 - the transverse incision. By this method, under ideal conditions, the whole operation could be performed extraperitoneally therefore lessening the danger of peritoneal infection (Newell, 1921, p.7). However Newell (1921) stated that Frank's claim that his operation was safe, even when the conservative operation was absolutely contra-indicated, did not stand the test of time and thus the procedure proposed by Frank was continually modified and developed by other German surgeons including Latzko and Sellheim (Newell, 1921, p.7; Young, 1944, p.211). For example, in 1912 Kronig introduced a technique whereby peritoneal flaps were developed and the uterine segment closed vertically (Young, 1944, p.215). Similarly, Kustner reviewed the whole subject of caesarean section in 1915 and carefully reported his own modification to the technique based on his personal experience of 112 operations (Newell, 1921, p.9).

By 1919 Beck had further refined the caesarean operation and developed more subtle techniques. In 1921 he reported 83 operations performed using his moderated technique with a success rate of 96.4%. While acknowledging certain technical difficulties Beck was eager to point out the advantages of his method which included lessened susceptibility to haemorrhaging, a shorter recovery period and considerably reduced risk of uterine scar rupture in the event of subsequent pregnancies (Young, 1944, p.216).

Kehrer's lower segment operation (1882) was introduced into the United Kingdom in 1921 by Eardley Holland and Munro Kerr following dissatisfaction with the classical operation (Holland, 1921a, p.355). Holland highlighted what he considered to be the 'defects' of the classical operation, they were: risk of sepsis in infected or suspected cases; risk of rupture of the scar; risk of intestinal complications during convalescence (although he did concede this to be a rare complication of the operation), and adhesions between the uterine scar and intestine, omentum, or abdominal wall (Holland, 1921a, pp.352-3). According to Holland the advantages of the new method which avoided these 'defects' were: the position of the wound which allowed better healing; less bleeding from the incision as it was made through a less

vascular area; the ease of suturing as the edges of the wound are thin; no risk of adhesions to intestines, omentum or abdominal wall because of the position of the wound; less likelihood of infection; less disturbance to the abdominal contents and the fact that the scar was less likely to rupture during subsequent pregnancies and/or labour (Holland, 1921a, p.355).

However, there was not total agreement over the propriety of the lower segment operation. Newell (1921) suggested that up until the time that he was writing it was Kustner's operation which seemed to hold out a greater promise of success than other modifications. He reported that at that time some authors, for example, J. B. Delee, (and presumably Holland and Kerr) were urging abandonment of the classical section in favour of the lower segment (or extraperitoneal) operation, but Newell felt that it was too early to pass judgement on their claims, although he did suggest that, in his experience, the classical operation performed on healthy women under ideal conditions had advantages over the extraperitoneal method and was a less difficult surgical procedure (Newell, 1921, pp.9 & 10).

#### Better Results

In 1926 Munro Kerr recorded four deaths from a reported 107 cases of the lower segment operation. However, British obstetricians were reluctant to adopt the new methods and it was not until 1931 when an article by J. St. George Wilson of Liverpool was published in which he reported 50 cases with only one death, that their attitudes began to change and the operation came into popular usage. Obstetricians became eager to publish the high success rates of their operations and a proliferation of statistics and articles followed, one of the most impressive being C. M. Marshall's report in 1939 of 245 cases without a single maternal death (Young, 1944, p.217).

The reduced risk of the operation as reflected in a steady decline in maternal mortality, from 12% in the 1890s to 4% by the 1930s (Young, 1944, p.217), produced not a decline in the rate of medical intervention in childbirth but rather a move away from the older style intervention techniques to a surgical procedure that appeared to be proving itself less damaging to the mother.



## MEDICAL INDICATIONS FOR CAESAREAN SECTION

Today there are many reasons why caesarean sections are performed. Some indications have little to do with the pregnant woman or her baby and more to do with the organisation or availability of hospital services. However, certain physiological conditions of pregnancy and labour continue to dominate as causal factors in caesarean section. Historically, the conditions leading to caesarean section have varied. It was not until 1604 that the physical condition of the woman prior to labour, that is, the size of her pelvis, was deemed an important indicator for caesarean section (Young, 1944, p.28). In 1798 one of the most comprehensive lists of circumstances which may necessitate the use of the operation was written. Most of the 'reasons' revolved around variations of the restricted pelvis and also included uterine rupture, abnormal presentation, deformity of the foetus and extra-uterine gestation (Hull, 1799, in Young, 1944, p.61). By 1801 the condition of tumours of the vagina had been added as an indication for caesarean section (Baudelocque, 1801, p.9).

Therefore during the nineteenth century the main indications for performing the caesarean operation were:

1. Size of pelvis, for example, locked, contracted or deformed pelvis.
2. Lacerated uterus.
3. Ventral conception (foetus growing outside of the uterus).
4. Uterine hernia.
5. Position of the child, for example, breech presentation (Hamilton, 1803, pp.254-261).

By the beginning of the twentieth century the main indicators for caesarean section had changed little, contraction and deformities of the pelvis generally being considered as absolute indications (Young, 1944, p.151). There was a great deal of debate regarding the measurements pertaining to the exact degree of contraction. However,

<sup>1</sup> See discussion on 'Non-Medical Variables Affecting the Caesarean Section Rate', p.109.

some commentators pointed out the futility of discussing absolute measurements of the pelvis without relating such dimensions to the size of the foetal head (Young, 1944, p.153).

For the mid-twentieth century Young (1944) also lists as indicators:

- Pelvic tumours,
- Cancer of the cervix,
- Uterine haemorrhage,
- Cardiac disease,
- Dystocia,
- Eclampsia
- Placenta praevia,
- Breech and other abnormal presentations

(Young, 1944, p.155-6).

Young (1944) provides the following data:

Table 1.3 Indications for Caesarean Section (early twentieth century)

n	BRITAIN			U. S. A.	
	182	436	256	140	573
	%	%	%	%	%
Contracted pelvis	74	62.3	63	47	57
Placenta praevia	6	8	12	6	7.5
Cardiac disease	7	9.4	7.4	4.3	3.6
Breech presentation	3.3	1.3	3.5	-	1
Pre-eclampsia	-	4.5	4	7	5
Eclampsia	(1 case)	0.4	1.2	1.7	2.4
Miscellaneous	9.3	12.9	8.6	34	23.3
SOURCE	McIlroy, 1932*	Haultain et al., 1933*	Kerr, 1937*	Greenhill, 1931*	Lull, 1933*

\*from Young, 1944, p.157.

By the mid twentieth century the main indications seem to have changed little, thus for the 1950s the conditions were:

1. Size of pelvis.
2. Placenta praevia.
3. Toxaemia.

(Johnell, 1972\*).

But by the 1960s other indicators had come to the fore viz:

1. Poor obstetric history.
2. Placental insufficiency.

(Georgiades and Reinold, 1972\*; Wittlinger and Kobyletzki, 1972\*; Frankenburg, 1975\*; Johnell et al, 1976\*).

By the 1970s the use of electronic foetal monitoring began to have an effect on the caesarean section rate and is reflected in the main indications for the operation:

1. Repeat caesareans (Hibbard, 1976\*; Case et al., 1971\*).
2. Foetal distress (Hibbard 1976\*).
3. Increased use of intrapartum foetal monitoring (Cole, 1976\*).
4. Breech presentation (Diddle et al., 1973\*, Hibbard, 1976\*).

(\* in Chalmers and Richards, 1977, p.44).

## Chapter Seven

### **CAESAREANS IN THE TWENTIETH CENTURY**

---

#### CAESAREANS IN THE TWENTIETH CENTURY

By the end of the nineteenth century the improved operating conditions including the use of antiseptic techniques and anaesthesia for pain allowed greater latitude in choosing to use the caesarean section. The increased experience of surgeons in the procedure lead to greater surgical competence bringing an improved post-operative success rate. The attitudes of medical practitioners to caesarean delivery began to change and the operation became more widely accepted.

#### 'Once a Caesarean, Always a Caesarean'?

It was in the early twentieth century that Edward Craigan made his famous pronouncement: "Once a cesarean, always a cesarean" on 12th May 1916 (Hansell et al., 1990, p.146). At the time, this was not an unreasonable claim for two reasons. First, the main indicator for caesarean section during the nineteenth century and the early part of the twentieth century was cephalopelvic disproportion, usually due to the small size of the woman's pelvis or deformity of the pelvis, thus the dictum would hold true as the indication for the original caesarean would be present in any subsequent pregnancies. Secondly, the use of the vertical incision, which was more prone to rupture than the lower segment incision introduced later, also meant that repeat caesareans were advisable.

However, Craigan's statement has been used to justify the practice of repeat caesarean for almost eighty years, particularly in the United States. Yet this is, in fact, an erroneous interpretation of his original lecture. Craingan's aim was to promote conservatism in the use of the caesarean section. Concerned over the rising rates, he advised caution in performing the first caesarean as this would sentence a woman to a life-time of caesareans for subsequent pregnancies because 'once a caesarean, always a caesarean'. As the

number of indications for caesarean section have increased significantly since the time that Craigan was lecturing and operative techniques have been substantially modified, including the use of the lower segment incision in almost all cases, the dictum is now outdated and obsolete<sub>1</sub>.

### Maternal Mortality

By the start of the twentieth century it was possible to have good results with caesarean section unless women were operated on late in labour, had received repeated vaginal operations or been subject to other techniques such as failed forceps or version<sub>2</sub>. A major article appeared in the Journal of Obstetrics and Gynaecology of the British Empire in January 1911 by Dr. Amand Routh. It drew attention to the different mortality in the caesarean operation according to the condition of the woman. In favourable conditions it was 2.9% but in suspect conditions it was 17.3%. When the woman had been previously examined or attempts were made to deliver by other means the death rate was 34.3% (Routh, 1911, p.19). The implication was that it was better to carry out the operation earlier rather than later, as Radford had suggested almost fifty years earlier (Radford, 1865, p.11).

Maternal death as a result of the caesarean operation began to decline probably due to the advances in medical care such as improved anaesthetic techniques, blood products and blood transfusions, a wider variety of antibiotics for the treatment of infection, and better medical control of maternal illnesses such as diabetes, hypertension and heart disease. Routh (1911) recorded that the mortality rate from caesarean section had steadily diminished from 38% in Glasgow between 1891-1900, to 20% in 1902, and by 1904 it had reduced to 12%. Moreover, he believed that in the United Kingdom the caesarean section was an operation with "hardly any morbidity" (Routh, 1911, p.16).

<sub>1</sub> See discussion on 'Repeat Caesareans and Vaginal Birth After Caesarean', p.115.

<sub>2</sub> Version: the moving of the infant in utero into a more favourable position for delivery.

## Chapter Seven

### **CAESAREANS IN THE TWENTIETH CENTURY**

---

#### CAESAREANS IN THE TWENTIETH CENTURY

By the end of the nineteenth century the improved operating conditions including the use of antiseptic techniques and anaesthesia for pain allowed greater latitude in choosing to use the caesarean section. The increased experience of surgeons in the procedure lead to greater surgical competence bringing an improved post-operative success rate. The attitudes of medical practitioners to caesarean delivery began to change and the operation became more widely accepted.

#### 'Once a Caesarean, Always a Caesarean'?

It was in the early twentieth century that Edward Craigan made his famous pronouncement: "Once a cesarean, always a cesarean" on 12th May 1916 (Hansell et al., 1990, p.146). At the time, this was not an unreasonable claim for two reasons. First, the main indicator for caesarean section during the nineteenth century and the early part of the twentieth century was cephalopelvic disproportion, usually due to the small size of the woman's pelvis or deformity of the pelvis, thus the dictum would hold true as the indication for the original caesarean would be present in any subsequent pregnancies. Secondly, the use of the vertical incision, which was more prone to rupture than the lower segment incision introduced later, also meant that repeat caesareans were advisable.

However, Craigan's statement has been used to justify the practice of repeat caesarean for almost eighty years, particularly in the United States. Yet this is, in fact, an erroneous interpretation of his original lecture. Craingan's aim was to promote conservatism in the use of the caesarean section. Concerned over the rising rates, he advised caution in performing the first caesarean as this would sentence a woman to a life-time of caesareans for subsequent pregnancies because 'once a caesarean, always a caesarean'. As the

number of indications for caesarean section have increased significantly since the time that Craigan was lecturing and operative techniques have been substantially modified, including the use of the lower segment incision in almost all cases, the dictum is now outdated and obsolete<sub>1</sub>.

### Maternal Mortality

By the start of the twentieth century it was possible to have good results with caesarean section unless women were operated on late in labour, had received repeated vaginal operations or been subject to other techniques such as failed forceps or version<sub>2</sub>. A major article appeared in the Journal of Obstetrics and Gynaecology of the British Empire in January 1911 by Dr. Amand Routh. It drew attention to the different mortality in the caesarean operation according to the condition of the woman. In favourable conditions it was 2.9% but in suspect conditions it was 17.3%. When the woman had been previously examined or attempts were made to deliver by other means the death rate was 34.3% (Routh, 1911, p.19). The implication was that it was better to carry out the operation earlier rather than later, as Radford had suggested almost fifty years earlier (Radford, 1865, p.11).

Maternal death as a result of the caesarean operation began to decline probably due to the advances in medical care such as improved anaesthetic techniques, blood products and blood transfusions, a wider variety of antibiotics for the treatment of infection, and better medical control of maternal illnesses such as diabetes, hypertension and heart disease. Routh (1911) recorded that the mortality rate from caesarean section had steadily diminished from 38% in Glasgow between 1891-1900, to 20% in 1902, and by 1904 it had reduced to 12%. Moreover, he believed that in the United Kingdom the caesarean section was an operation with "hardly any morbidity" (Routh, 1911, p.16).

<sub>1</sub> See discussion on 'Repeat Caesareans and Vaginal Birth After Caesarean', p.115.

<sub>2</sub> Version: the moving of the infant in utero into a more favourable position for delivery.

In 1921 Eardley Holland and Munro Kerr carried out the first comprehensive survey and audit of caesarean sections in order to ascertain the maternal mortality rate for the different indications. They gathered data for 4197 caesareans carried out in Great Britain and Ireland between 1911 and 1920. 80% were performed because of contracted pelvis; 5.5% for eclampsia and other toxæmias of pregnancy; 5% for ante partum haemorrhage and the final 9.5% for other conditions (Holland, 1921b, p.359). They found that the maternal mortality rate for contracted pelvis was 4.1% but highlighted, once again, that the condition of the woman at the time of the operation had an effect on the outcome. The mortality rate amongst women operated on late in labour was 10% and 27% amongst cases operated on after attempts had been made to deliver with forceps or craniotomy (Holland, 1921b, p.363). The most likely explanation for the success of the operation for contracted pelvis is that the condition could usually be ascertained before the onset of labour and therefore the operation performed early, which meant that the woman had a greater chance of survival.

#### Rising Caesarean Rates

Nonetheless, the British obstetricians of the early twentieth century were reluctant to switch to the new method of intervention, preferring instead their tried and trusted methods such as craniotomy. British obstetric textbooks continued to demonstrate this preference whilst such destructive techniques had been rejected by practitioners in the United States and the rest of Europe. Early editions of 'Williams Obstetrics' (1908) recommended the use of craniotomy instead of caesarean. However, the tide of change had begun in favour of abdominal delivery and by the 1930s and 1940s later editions of the book proposed the caesarean section and a more 'restricted' use of craniotomy (Shorter, 1982, p.163).

Some doctors felt it was time for caesareans to replace destruction of the baby. In a discussion of the subject later in the year a doctor, Hastings Tweedy, said it was time that craniotomy on the living child was relegated:

*"to its place amongst the obsolete barbarities of the past"*  
(BMJ, 1911, in Francome et al., 1993, p.37).



Thus from the beginning of the twentieth century, in terms of the use of the operation as a birthing technique, caesarean section had taken off. Although its transition into popular use was slow to begin with - by the 1930s caesarean section still remained less frequently used than forceps delivery and less often performed than vaginal delivery in cases of breech presentation. But there was no looking back. Routh demonstrated the increase in use of caesareans in the case of Queen Charlotte's Hospital. From 1890 to 1899, out of 10,529 deliveries, only 7 were carried out by caesarean. Between 1900-1909 there were 15,222 deliveries, an increase of 50%, however, caesareans increased ten fold to 74 by 1910. The main switch was away from craniotomy which declined from 28% of births in the first decade to 13% in the second (Routh, 1911, p.17). Between 1900 and 1909 1% of all births in United States' Hospitals were by caesarean section. By the 1940s this figure had risen to 3%. Britain's record was similar, in Dublin's Rotunda Hospital the rate for the caesarean operation was over 2% by the 1940s (Shorter, 1982, p.162).

By the 1920s some discussion had begun on the long term effects of caesarean section. At this stage attention was concentrated on the outcome of subsequent pregnancies. In 1920 the BMJ reported a meeting at which Dr. Eardley Holland gave details of 1,089 caesareans which had been followed up. Of these, 610 women had no further pregnancy, in part because sterilisation was often performed at the same time. Of the 479 who had a subsequent pregnancy, 91 had not delivered and 42 had had abortions or miscarriages but there had been a total of 396 subsequent births with more than four out of five of them (82%) being performed by caesarean (BMJ, 1920, in Young, 1944, p.217).

#### Indications for Caesareans

The major focus of concern and the subject of much debate in the 1920s was the indications that would necessitate the performing of a caesarean operation. The changes in technique in the early part of the twentieth century meant there was continuous debate over what the indications for caesarean section should be. R.W. Holmes argued in 1915 that the operation had become a sort of 'makeshift' for real obstetric practice. He pointed out that those who were carrying out caesareans for reasons such as high blood pressure must accept the

responsibility for deaths in subsequent pregnancies if the uterus ruptures. He argued that such deaths should be considered in calculating the mortality rates for first caesareans (Holmes, 1915, in Young, 1944, p.164).

J. T. Williams advocated that there should be a caesarean for all cases where there was breech presentation for a primiparous woman (Williams, 1916, in Young, 1944, p.143). In 1916 the BMJ published an article by R. Gordon Bell of Sunderland who detailed a successful caesarean he had performed on a woman with a contracted pelvis whose two previous pregnancies had ended in the destruction of the child in both cases (Bell, 1916, p.195). But the same journal carried a cautionary article by F.S. Kellogg entitled 'Caesarean Section Overdone'. In the following year Whitridge Williams (1917) told the Clinical Congress of Surgeons of the United States:

*"Advances in the practice of medicine and surgery are rarely attained in a thoroughly rational manner, but that a period of undue enthusiasm, or even absurd reckless abuse, usually precedes the establishment of the actual value of a given procedure ... I believe that we are at present going through such a stage in connection with Caesarean section"* (Young, 1944, p.165).

In 1921 the Journal of Obstetrics and Gynaecology of the British Empire published an index to volume 28 dedicated to a discussion of caesarean section with contributions from prominent individuals in the contemporary medical fraternity. Munro Kerr's contribution was a discussion of the indications for caesarean section. The major indication at that time, he said, was contracted pelvis (84% of cases), followed by tumours, eclampsia, placenta praevia, accidental haemorrhage and, to a lesser extent, ventralfixed uterus, interposition operation, prolapse of the cord, impacted shoulder presentation, abnormal conditions in the child, retraction and contraction rings, rigidity of cervix and vagina and grave diseases threatening the life of the mother (Kerr, 1921, pp.431-8). However, he summed up by stating:

*"I am quite convinced that twenty years hence, when the youngest here have become the seniors, the accepted*

*indications for Caesarean section will be extended even beyond the limits suggested" (Kerr, 1921, p.348).*

As the operation became safer (measured in terms of maternal mortality), following the introduction of the classical operation by Sanger in 1882, the indications for the operation began to steadily increase. However, the rapidly growing list of indications for the operation gave rise to a certain amount of concern, even amongst proponents of the caesarean such as Kerr and Holland. Holland stated that:

*"No operation has in modern times had its list of indications so widely, and as some consider so recklessly, extended as Caesarean section" (Holland, 1921a, p.349).*

#### The Anti-Caesarean Backlash

Not surprisingly opponents of the operation seized the opportunity to attack the widespread use of the caesarean. Blacker (1921) criticised Kerr and Holland for over-reliance on abdominal delivery. Whilst acknowledging the success of the operation on 'suitable cases' in 'suitable surroundings' in which proper asepsis could be assured, Blacker questioned the use of the operation for conditions where there was no proof of its success. He suggested that the increase in the number of operations being performed had led not to the precise definition of indications but rather to the widening of the number of indications. He concluded that when indications such as:

*"uterine inertia, epilepsy, hydramnios, varicous veins and abdominal pain" are recorded, the only explanation could be "operative zeal of the practitioner" rather than "knowledge and judgement" (Blacker, 1921, p.447).*

Blacker compared Kerr and Holland's statistics for cases of contracted pelves which demonstrated a maternal mortality from caesarean section of 4.1% with data on women with contracted pelves who had delivered spontaneously, the mortality rate, he said, was less than 1% (.09%) (Blacker, 1921, p.450). His suggestion therefore was that even in cases of obvious contraction of the pelvis it was still safer for the woman to be left to deliver spontaneously than being subjected to a caesarean section. His argument centred on the fact that whilst

maternal mortality from caesarean section had been reduced significantly, there was still an element of risk involved and therefore the operation could not be resorted to as an easy option. Believing that the life of the mother should not be sacrificed in an attempt to save the life of the child, Blacker recommended craniotomy for cases where spontaneous delivery could not occur. The maternal mortality from craniotomy at that time was 6% where the child was already dead and 1.3% where the procedure was performed on a living child. Blacker therefore questioned the justification of performing the caesarean operation which involved a maternal mortality of 4% at the best and 27% at the worst. He said:

*"No obstetrician undertakes such an operation as craniotomy on a living child without the greatest repugnance, but to pretend that this operation can be replaced without greater danger to the mother by such procedures as pubiotomy or Caesarean section, no matter how skilful the attendant, is to shut one's eyes to the truth" (Blacker, 1921, p.454).*

#### Caesarean Sections: Good Use or Abuse?

The debates of the early twentieth century marked an important turning point in medical attitude towards caesarean section and during 1921/22 the seeds were sown for a new type of caution towards the operation. The suggestion was made that abdominal delivery could be abused. This position was not new. Almost 140 years earlier William Dease (1783) had suggested that the operation was being used to further the reputations of obstetricians rather than for medical necessity. What was new however, was the contention that the operation could be abused for the purpose of medical convenience. In 1922 the BMJ led with a major editorial on caesareans. It commented:

*"No subject in obstetrics or gynaecology is being more talked about and discussed at present than caesarean section" (BMJ, 1922, p.277).*

It stated that the increase in popularity was in large part due to the collected statistics of Dr. Routh in 1911. It went on to say that there was a danger that the operation could become a panacea for all obstetric ills and quoted Dr. Blacker who had said that the ease and safety of the caesarean operation was leading to its abuse. It also

drew attention to the accusation of Dr. Franklin Newell, Professor of Clinical Obstetrics at Harvard, that the caesarean was the most abused obstetric operation:

*"The operative indication has been a slow though normal labour which the attendant has hastened to end in the manner easiest for himself though often not best for the patient" (BMJ, 1922, p.277).*

The BMJ concluded that there was a temptation to perform an easy, quick and dramatic operation instead of following the safer and better, but more tedious path of ordinary obstetric methods. It continued to argue that the increased number of indications for the operation:

*"is enough to show that the operation is indeed being abused here and now".*

It went on to state that the view of one eminent and experienced obstetrician was that:

*"The art and science of midwifery have either been lost by the younger generation in this country or will certainly be lost if this mad rage for caesarean section is continued" (BMJ, 1922, p.278).*

The BMJ conceded that the operation often led to a better outlook for the child, but agreeing with Blacker, argued that the profession should not lose its sense of the proportionate value of maternal life as compared to that of the foetus. It said that only in exceptional circumstances was it justified to expose the woman to increased risk in the interests of the 'unborn child' (BMJ, 1922, p.278).

### Too Many Caesareans?

The debate over 'whether to section or not to section' which began amongst obstetricians in the sixteenth century continued into the early twentieth century (as it does today). This led to continual concern over the number of operations being performed. One very important contribution to the debate came from Plass, writing in the American Journal of Obstetrics and Gynecology in 1931. His argument was based upon the fact that there was still a significant maternal mortality

rate associated with the caesarean operation and that if, as the evidence suggested, many of the operations may not have been required, many women were therefore losing their lives unnecessarily. He stated that, in general, the death rate was 5-10%. In the United States the death rate appeared to be lower, but he estimated a death list each year of 900-1,800, with three-quarters of these being unnecessary (Young, 1944, p. 168).

A similar theme was at the heart of a discussion which occurred in 1935 when the BMJ had its annual meeting in Melbourne, Australia. J. Bright Bannister complained that the caesarean operation had degenerated from being an attempt to save lives to an apparently easy way of avoiding difficulties without regard to its perils. There had been an enormous increase in the incidence of the operation often for such slender reasons as failure to progress, advanced age of the mother, breech presentation and unwillingness to undergo the pains of labour (Bright Bannister, 1935, pp. 684-5). He argued that from the evidence of 1,763 deliveries in large maternity hospitals in England and 1,723 births in Brooklyn occurring between 1921 and 1926, it appeared that the death rate of the mother for caesarean section was 6.6%. For vaginal delivery, it was only 0.45% in England and Wales. He continued to state that in 1932 alone there had been 170 deaths after caesareans (Bright Bannister, 1935, pp. 685).

Dr. H.A. Ridler of Sydney agreed there were too many caesareans:

*"This was the result in modern times of the love of the dramatic, of the desire to earn a big fee easily, and of the love of speed"* (Ridler, 1935, in Francome et al., 1993, p. 41).

However, others argued that in using statistics in this way Bannister was not comparing like with like because women having caesarean were often in a very difficult situation prior to the operation. Professor J.B. Dawson said that in Britain there were not too many caesareans but rather too many done too late. Disasters occurred not after prompt action but after undue delay (Dawson, 1935, in Francome et al., 1993, p. 41).

Whilst the BMJ and many American authorities may have been urging caution in the use of caesarean section it appears that the rest of the medical profession were determined to fully utilise what they perceived to be the benefits of this method of delivery. The confidence of the medical establishment in caesarean section as a safe operative procedure was highlighted by the fact that the Queen and Princess Margaret entered the world this way in 1926 and 1930 respectively (Holt, 1986, p.60).

#### A New Mood of Caution

A meeting of the North of England Obstetrical and Gynaecological Society held on the 27th November, 1936 was reported in the BMJ. The debate centred on a paper previously presented to the Society by Professor A.M. Claye on the indications for caesarean section. Claye had highlighted the comparatively low mortality from the lower segment operation, even when operations were performed late in labour or after other interventions had been tried. He had further suggested that the operation was safer than craniotomy (BMJ., 1936, p.1279). Mr. W. Gough opened the discussion by criticising the movement towards the treatment of any obstetric difficulty by section (BMJ., 1936, p.1279). It is obvious that the medical fraternity had been aware of the risks of widening the number of indications for some time as many of the major characters of the time had spoken out urging some caution in the employment of the operation. Mr. C.M. Marshall however, stated that the improvements in technique would undoubtedly lead to a wider scope of application and suggested that it would be more productive to explore ways in which the operative technique could be improved. He supported his argument with data from 170 cases of lower segment operations which he had carried out without any maternal deaths. This, of course, was contentious at the time, given the mood of caution sweeping the medical profession regarding the caesarean operation, but the most important aspect of Marshall's contribution to the meeting was that he went on to raise the issue of the use of different types of anaesthesia for abdominal delivery. His contention was that, based on his own experience and results published by Daily from the Chicago Lying-In Hospital, general anaesthesia was much more dangerous to the life of the mother than regional anaesthetic (BMJ, 1936, p.1280).

The debates of the early twentieth century are important because they represent the first indication that the modern medical profession was beginning to recognise the possible abuse of the operation in terms of it being used in the interests of the practitioner rather than those of the patient. However, such concerns did not result in a reduction in the caesarean section rates. During the Second World War commentators in the United States were still concerned about the levels of caesareans. Cotgrove and Norton stated that caesarean section had been frequently used for such reasons as:

*"primigravidity in the elderly, election by neurotic patients and high social value of the offspring, which can hardly be considered legitimate"* (Cotgrove and Norton, 1942, p.201).

Delee concurred with these sentiments and commented that the high level of operations was a crucial factor in the continuing high maternal mortality rates (Delee, 1942, p.209).

Thus the debates of the earlier part of the twentieth century demonstrated great concern among some obstetricians about the caesarean rates which were recognised as being above those necessary for the best care of mothers and their babies, indeed the rates had reached levels where maternal mortality was being increased as a result, rather than decreased.

#### The Role of the Church - Part II

Religion continued to have an influence on the practice of childbirth into the twentieth century (as it does today). In fact the Catholic Church was still recommending the carrying out of a caesarean on the death of the mother right up until the 1930s. In the fifth edition of his book 'Moral Problems in Hospital Practice' published in 1935 Finney stated:

*"The canon directs that, if the mother dies during pregnancy, the fetus should be extracted by those upon whom this duty devolves ... the catholic physician is obliged to perform the caesarean operation in all stages of pregnancy beginning with the period when the embryo is distinguishable and has the form of a fetus ... this fourth provision of the canon is based on the fact that the fetus often survives the mother who dies after delivery and*



*therefore nothing should be left undone to extract the fetus without delay, because, under the circumstances there is nearly always the chance to administer baptism and therefore secure eternal life for the fetus" (Finney, 1935, p. 46).*

In his book, Finney stressed the importance of ensuring that the woman was in fact dead prior to the performance of the operation as in some cases the woman had been killed by this kind of intervention (Finney, 1935, p. 46).

Yet, this did not mean that the Catholic Church was not advocating the sacrifice of the mother in order to save the child. In fact, it was quite the reverse. Being totally opposed to the destruction of the infant by procedures such as craniotomy and embryotomy, the Catholic Church recommended that caesareans should be carried out even if it meant the death of the mother. As late as 1935 Papal authority approved the publication in London and St. Louis of the fifth edition of the book 'Moral Problems in Hospital Practice' which advocated the sacrifice of the mother rather than saving her life through the destruction of the child. It stated:

*"To preserve ones life is generally speaking duty; but it may be the plainest duty, the highest duty, to sacrifice one's life. War is full of such instances, in which it is not man's duty to live but to die ... a parallel case, is the situation of a woman in a difficult labour, when her life and that of her unborn child are in extreme danger. In this situation it is the mother's duty to die rather to consent to the killing of her child" (Finney, 1935, p. 47).*

Finney continued:

*"The first fact in the world is that justice, law and order should be observed no matter what the cost; better that ten thousand mothers should die than one foetus be unjustly killed" (Finney, 1935, p. 47).*

Finney's book was reviewed in the British medical literature and widely read. He had balanced the life of a foetus with ten thousand women. Others went even further. A.J. Shulte (1917) a professor of Liturgy stated:

*"Even if the life of the mother is in danger, a physician has no right to destroy the child's life. I say now and with all seriousness that it is better that one million mothers die than to have one innocent little creature killed" (Shulte, 1917, in Francome et al., 1993, p.26).*

#### New Age of 'The Child'

Since 1944 increased emphasis has been placed on perinatal and neonatal outcomes. Before this time interest (outside of the Catholic Church) was concentrated on maternal mortality, foetal and neonatal mortality was seen as a natural part of the childbirth and child-bearing process. The shift in attention reflected changes in attitudes and societal pressures at the time. The end of the Second World War had left most countries with a somewhat depleted population placing greater emphasis on the successful outcome of childbirth. Also changes taking place in terms of family size with the shift to smaller nuclear units coupled with the introduction of effective birth control in the 1960s had increased emphasis on the outcome of each pregnancy.

The importance placed on the health of the foetus gained more recognition by the mid 1950s and increased its emphasis during the 1960s. With societal pressure for improving the life chances of the foetus and neonate, medical practitioners turned to the caesarean operation in an attempt to address this demand. As emphasis was now being placed on outcome for both mother and foetus/neonate, the medical profession was again forced into the dilemma of having to weigh up the relative benefits of any interventionist procedure (or lack of it) to each patient.

As caesareans became safer they therefore became more plausible to use. Accompanying this change in emphasis from the older style of interventions in childbirth to the 'new' surgical procedure was a crucial shift in approach, and later attitude, to childbirth, thus there was little overall increase in intervention levels before the 1930s. A decrease in forceps delivery, for example, meant an increase in caesarean section (Shorter, 1982, p.162). However, the rise in the caesarean section rates inevitably correlated to increases in the reliance on medical specialists for the management of childbirth. Hence an important implication of the increased use of caesarean

section as a mode of delivery was the necessity for hospitalisation that accompanied it. By the mid 1950s there was a marked trend towards hospital confinement in the United Kingdom. Hospital deliveries rose from 64% of births in 1955 to 96% in 1974 (DHSS., 1970 and 1976, in O'Brien, 1978, p.460). The move towards hospital birth and away from home confinement was based on the assumption that hospitals could offer the safest environment possible for the delivery of infants. An assumption which is still in evidence today, and which continues to be open to question.

Recently the increasing use of caesarean section has prompted concern and questions have been raised over the efficacy of its use. In 1980 the National Institutes of Health (NIH) in the United States held a Health Consensus Development Conference (September 22-24) to address a number of issues relating to caesarean childbirth. The main points of concern were: the increasing rates of caesarean section and reasons for these; the effects of increased use of caesarean section on pregnancy outcomes; the short and long term medical and psychological effects of caesarean delivery on mothers, infants and families; the legal and ethical aspects of decisions to perform caesarean operations and the financial considerations of the rising caesarean rate (NIH, 1981, p.3). After considering the evidence available at that time the task force decided that the increasing rate of caesareans could not be justified in terms of maternal and infant outcomes and was therefore a cause for concern. It went on to stress that the rise could be halted and even reversed while continuing to make improvements in maternal and foetal outcomes (NIH, 1981, p.4). However, it appears that there is still a long way to go to reach an optimum level of caesareans. Writing almost a decade after the NIH report, Myers and Gleicher (1990) stated that part of the NIH report's message had reached some obstetricians but that much of the message had not reached the majority of obstetricians (Myers and Gleicher, 1990, p.200).

BIBLIOGRAPHY AND REFERENCES:

Volume I

---

Allison, J. (1987) *Highlights from the History of Caesarean Section, Midwife, Health Visitor and Community Nurse*, 23(12): 546-7.

Baliva, R. and Serpieri, A. (1886) *The Lancet*, 5: 890 and 994.

Baudelocque, M. (1801) Two Memoirs on the Cesarean Operation, translated from the French by John Hull, Manchester: Sowler and Russell.

Blacker, G. (1921) *The Limitations of Caesarean Section*, *The Journal of Obstetrics and Gynaecology of the British Empire*, Index to volume 28: 447-62.

Bishop, W.J. (1960) The Early History of Surgery, London: Robert Hale Ltd.

Bright Bannister, J. (1935) *British Medical Journal*, I: 684-5.

*British Medical Journal (BMJ) (editorial) (1922)*, I: 277-8.

*British Medical Journal (BMJ) (1936) Report of the Meeting of the North of England Obstetrical and Gynaecological Society (27 November 1936)*, 2: 1279-80.

Cameron, M. (1892) *British Medical Journal*, 3: 594.

Chalmers, I. and Richards, M. (1977) *Intervention and Causal Inference in Obstetric Practice*, in Chard, T. and Richards, M. (eds) Benefits and Hazards of The New Obstetrics, Suffolk: SIMP.

Cotgrove, S.A. and Norton, J.F. (1942) *Cesarean Section*, *Journal of the American Medical Association (JAMA)*, 118(3): 201-4.

DeLee, J.B. (1913) Principles and Practice of Obstetrics, W.B. Saunders.

Delee, J.B. (1942) *Cesarean Section*, *Journal of the American Medical Association*, 118(3): 201-9.

Engelkes, E. and van Roosmalen, J. (1992) *The Value of Symphyseotomy Compared with Caesarean Section in Cases of Obstructed Labour*, *Social Science and Medicine*, 35(6): 789-93.

Finney, Rev. P.A. (1935) Moral Problems in Hospital Practice, Fifth Edition, London: B. Herder Book Company.

Francome, C. (1990) Changing Childbirth, London: Maternity Alliance.

Francome, C., Savage, W., Churchill, H. and Lewison, H. (1993) Caesarean Birth in Britain, Cambridge: Middlesex University.

- Guillimeau, J. (1612) Childbirth, London: A. Hatfield.
- Hamilton, A. (1803) Outlines of the Teory and Practice of Midwifery, 5th Edition, Edinburgh: T. Kay.
- Hansell, R. S., McMurray, K. B. and Huey, G. R. (1990) *Vaginal Birth After Two or More Cesarean Sections: A five year experience*, *Birth*, 17(3): 146-50.
- Hare, S. (1838) *Objections to the Caesarean Operation*, *The Lancet*, 2: 702-3.
- Harris, R. P. (1888) *International Journal of Medical Science*, 95: 150.
- Holland, E. (1921a) *Methods of performing Caesarean section*, *The Journal of Obstetrics and Gynaecology of the British Empire*, Index to volume 28: 349-57.
- Holland, E. (1921b) *The Results of a Collective Investigation into Caesarean Sections performed in Great Britain and Ireland from the year 1911 to 1920 inclusive*, *The Journal of Obstetrics and Gynaecology of the British Empire*, Index to volume 28: 358-82.
- Holt, M. (1986) *Ghosts from the past*, *Nursing Times*, Aug 13: 60.
- Hull, J. (1798) A Defence of the Caesarean Operation, Manchester: R. & W. Dean.
- Journal of the American Medical Association (JAMA)* (1794), 115: 1942.
- Kerr, J. M. M., (1921) *Indication for Caesarean section*, *The Journal of Obstetrics and Gynaecology of the British Empire*, Index to volume 28: 338-49.
- Lancet The* (1851a) *Proceedings of the Meeting of the Royal Medical and Chirurgical Society* (Tuesday, January 28, 1851), 1: 152-5.
- Lancet The* (1851b) *Proceedings of the Meeting of the Royal Medical and Chirurgical Society* (Tuesday, February 11, 1851), 1: 204-10.
- Lomas, J. and Enkin, M. (1989) *Variations in operative delivery rates, in Calmers, Enkin and Kierse (Eds) Effective Care in Pregnancy and Childbirth*, Oxford: Oxford University Press.
- Myers, S. A. and Gleicher, N. (1990) *1988 US Cesarean-Section Rate: Good News or Bad?*, *The New England Journal of Medicine*, 323(3): 200.
- Newell, F. S. (1921) Cesarean Section, New York, London: D. Appleton and Co.
- National Institutes of Health (NIH) (1981) Cesarean birth: Report of a Consensus Development Conference, Bethesda, Maryland: NIH Publication No. 82-2067.

O'Brien, M. (1978) *Home and Hospital: a comparison of the experience of mothers having home and hospital confinements*, *Journal of the Royal College of General Practitioners*, 28: 460-6.

Radford, Thomas, (1865) Observations on the Caesarean Section and on Other Obstetric Operations, London: T. Richards.

Routh, A. (1911) *Journal of Obstetrics and Gynaecology of the British Empire*, 19: 1-25.

Shakespeare (1605) Macbeth.

Shorter, E, (1982) A History of Women's Bodies, London: Allen Lane.

Simmons, W. (1799) *Reflection on the Propriety of Performing the Caesarean Operation*, *The Medical and Physical Journal*, 2: 231.

Stewart, D. (1747) *The Caesarean Operation Done with Success by a Midwife*, *Medical Essays and Observations*, 3(1): 360-2.

Stewart, D. (1771) *Edinburgh Medical Essays and Observations*, 5: 37.

Tyler Smith, W. (1856) *A Course of Lectures on the Theory and Practice of Obstetrics*, *The Lancet*, 2: 639-41.

Vanderfuhr, F. (1826) *Caesarean Section successfully performed, both Mother and Child having been saved*, *The Lancet*, 9: 388.

Wakley, T. (1838) *The Lancet* (editorial), 2: 703.

Young, J. H., (1944) Caesarean Section, The history and development of the operation from the earliest times, London: H.K. Lewis and Co. Ltd.

VOLUME II

*The Experience of  
Caesarean Section*

## Chapter Eight

### THE MEDICALISATION OF CHILDBIRTH

---

#### INTERVENTION IN CHILDBIRTH

In Britain over recent years levels of medical intervention in childbirth, especially caesarean section, have increased markedly from 2.7% of births in 1958 to almost 13% in 1992 (Savage and Francome, 1993, p.494). In the United States the trend has been even more marked. The percentage of births by caesarean section rose from 5.5 in 1970 (Francome and Huntingford 1980, p.353), to almost 25% in 1988, although they did show a slight decrease to 20.4% in 1990 (Taffel et al., 1992, p.22).

There has been strong debate over both the degree of intervention in childbirth and also about who should control it. Some obstetricians take a great deal of notice of the opinions of women as to the kind of delivery they want and are conservative in their approach to intervention. They are committed to a process of non-intervention and believe that this is justified in terms of successful outcome. However, it appears that many obstetricians have taken the view that an interventionist approach to the management of labour is desirable to ensure a good outcome.

The medical assumption that increased rates of technological intervention in childbirth, including caesarean section, lead to improved chances of infant survival and optimal health is open to question. The evidence suggests that no causal relationship exists between the two.

, See: O'Driscoll and Foley (1983); NIH. (1981), and Sanchez-Ramos et al. (1990).



## THE MEDICALISATION OF CHILDBIRTH

Historically the management of reproduction has been a female concern in most cultures. However, childbirth in industrial societies is characterised by male control. This raises questions about the position of women in general and as child bearers in particular.

The way in which the mainly male medical profession has displaced the midwives in delivery, and how little control women have over their own bodies at the time of giving birth has been well documented and it remains a contentious issue. It is not my intention to recount the male take-over of control over pregnancy and childbirth, but rather to highlight the problems now faced by women because of this control. Although the majority of deliveries are supervised by midwives in this country, it is the male-dominated medical frame of reference that poses the greatest risk to women in labour.

It has been suggested that the medicalisation of childbirth has led to a particular view of women being taken by the medical profession.

*"The conversion of female controlled community management to male controlled medical management alone would suggest that the propagation of particular paradigms of women as maternity cases has been central to the whole development of medically dominated maternity care" (Oakley 1980, p.11).*

The appropriation of women's bodies and childbirth into the medical frame of reference has led to the deskilling of women in such matters and the establishment of doctors as the experts. The features of this medical frame of reference are:

- 1) Reproduction is defined as a 'specialist' subject - the only experts in this subject are doctors.

*, See: Ehrenrich, B. and English, D. (1979) For Her Own Good, 150 Years of the Experts' Advice to Women, London: Pluto Press, for a detailed account of male professionals' take-over of skills and knowledge traditionally the domain of women.*

- ii) The associated definition of reproduction as a 'medical' subject analogous to other pathological processes as the subject of medical knowledge and intervention.
- iii) The assumption of limited criteria for 'reproductive success', that is, perinatal and maternal mortality rates.
- iv) The separation of reproduction from its social context, the only relevant status of women becomes 'pregnant patient'.
- v) The restriction of women to maternity - their derived typification as 'by nature' maternal, domesticated, family-orientated people (Graham and Oakley, 1981, pp.52-60).

Thus other factors such as women's experience and knowledge have no place in the medical frame of reference. What this leads to is a three-tier system with obstetricians at the top, the 'experts'; midwives in the middle, the labour attendants/assistants; and finally women, the pregnant patients, inexperienced, insecure and incapable of delivering without the help of the experts.

The medicalisation of childbirth has necessarily brought it within the remit of hospital services. The medicalisation of reproduction and hospitalisation of childbirth was encouraged by two Government reports. In 1959 the Cranbrook report was published. This stated the Government's aim of achieving 100% hospital births, and in 1970 the Peel report added weight to that decision.

The basis of the reports' conclusions were by no means scientific. Social and psychological aspects were not considered. No consumers of the maternity services were represented on the committees which consisted entirely of doctors. The Department of Health's policy is still based on such opinion. Sociological factors such as the organisation of the medical profession, the relative status of patients and those doing primary care, the role of financial factors and the concept of medical fashion are not taken into account yet have significant effects.

Hospitals are very hierarchical institutions. The advantage of this system of management is that decisions can be made quickly and efficiently. What this means is that decisions are made by the most senior member of the health care team present, usually the doctor. The disadvantage of this system is that those at the top of the hierarchy get an exaggerated view of their own abilities which may lead to the exercise of power in situations where it is not appropriate or necessary.

This puts obstetricians in a very powerful position in our society. As women have been disempowered and deskilled in childbirth they have to rely on the knowledge of the obstetricians, and put their faith and trust in them. As the relationship between obstetricians and women is unequal it is open to abuse. If, as the evidence suggests, many interventions, particularly caesarean section, are carried out unnecessarily or for reasons other than medical necessity, it indicates that there is a conspiracy of silence amongst obstetricians. Women are not told the real reasons for their operations. The abuse of power is completed by the fact that most women do not question the authority of obstetricians. No woman undergoing a caesarean believes that her operation was unnecessary.

Women in general have shown a preference for natural delivery but this has not been reflected in medical practice. There have been movements against this overall approach from women's groups and something of a polarisation of attitudes. For example, the response of the chair of the Royal College of Obstetricians at the Conference on Active Birth at Wembley in 1983, was to accuse the women of being selfish. The important debate on what type of care should be offered continues.

Despite almost thirty years of campaigning for natural childbirth and for women to regain control over their bodies and experience of childbirth; to be given real choices about where to give birth; whether to receive drugs or not, whether to allow surgical intervention, the number of hospital deliveries and the rates of medical intervention in the process of birth continue to rise.

## Chapter Nine

### **CONFLICT IN MATERNITY SERVICES**

---

#### CONFLICT BETWEEN LAY AND PROFESSIONAL VIEWS ON PREGNANCY AND LABOUR

The differing perceptions of obstetricians and women about the experience of childbirth has led to a conflict between the two.

These differences may not be due entirely to differences between professional and lay beliefs but possibly have more to do with differences between men and women (Graham and Oakley, 1981, p.51). The process of reproduction may have entirely different connotations for men and women. For the medical men childbirth is a small, not terribly significant event in their busy work schedule, that is, it is a *transient* episode. For women, however, childbirth is a major life event with consequences that stretch far beyond the episode of labour. It is a natural, often inevitable, biological process. An event that has major significance for the whole of their lives, the fulfilment of their expectations (and perhaps, the fulfilment of society's expectations of them).

This point is highlighted by the fact that many midwives (mostly women) feel resentment at the male take-over of their work and sympathise with women over their sense of loss when technology is used to achieve delivery. Midwives may experience feelings of anxiety and regret when operative birth is decided upon. Anxiety for the mother and child, regret that the mother's expectations for normal delivery will not be fulfilled (Inch, 1986, p.67).

It could be argued that a certain percentage of doctors are also women and therefore the difference between the ideas and expectations of obstetricians and pregnant women cannot be analysed in terms of gender. But it is useful to bear in mind that those medical women have entered a patriarchal profession and been trained by a patriarchal system into men's knowledge about women and women's bodies. It is inevitable that

those women will have internalised at least some of the male medical attitudes and perceptions.

Midwives are in a different position altogether. Whilst a predominantly female profession they remain part of the medical establishment. A position which may cause a certain amount of conflict. Whilst some midwives experience regret when obstetricians take-over the birth process, others have accepted the obstetricians' view of pregnancy and childbirth, seeing a successful outcome as a healthy baby, regardless of the means by which it was achieved:

*"If at the end of the day (or night) a healthy baby is born into the world, is it such an earth-shaking tragedy that a caesarean section was used to bring this about?" (Holt, 1986, p.60).*

Obviously, some women (and men) are breaking free from the chains of the male interpretation and construction of knowledge that binds them and are spearheading the way forward to a woman-centred approach to obstetric care. But at what individual cost are such changes being made? One has only to look at the case of Wendy Savage in 1985, to appreciate the strength of opposition to any challenge to traditional practice and models of care in obstetrics.

#### Success in Childbirth

Success may be perceived differently by obstetricians and women in childbirth. Obstetricians tend to view 'success' in terms of perinatal and maternal mortality rates. It may be difficult for health care professionals to understand why the birth of a healthy child, under whatever circumstances, could be a disappointment to its parents.

1 Wendy Savage, Consultant Obstetrician at The London Hospital, was suspended from work in 1985 following the death of a neonate, for not performing a caesarean section in a situation where her colleagues would have done. (See Savage, W. [1988] A Savage Enquiry, London: Virago Press).

For women 'success' in terms of pregnancy and childbirth is a more complex issue. Of course, the birth of a healthy baby is of paramount importance in almost all cases, but for many women 'success' is also measured in terms of a personally satisfying experience and a sense of achievement (Graham and Oakley, 1981, pp.54-5). The physical and emotional exhaustion of a possibly long labour which culminates in major surgery cannot be underestimated and may result in a process of grieving which can go on for months and even years (Laufer et al., 1987, p.41). The implication here is that medical intervention in childbirth actively denies women the ability to achieve a sense of accomplishment and leaves them with feelings of lack of achievement and no sense of having succeeded in childbirth.

This is not to deny the experiences of many women who find childbirth a rewarding and fulfilling event, but rather to point to the dissatisfaction of some women with interventionist approaches to childbirth which continue to increase. The implication is that as rates of intervention increase, less and less women will have rewarding experiences of childbirth. Of course, it would be unreasonable to suggest that labour is an ideal process during which women need no help or support. The problem is the universal application of interventionist techniques that are actually required only in selected cases. What is necessary is the realisation that the current pattern of medical intervention in childbirth is not necessarily in the best interest of women and their babies.

#### Satisfaction with Childbirth

The growth in intervention in childbirth including caesarean section, together with other medical fashions such as routine episiotomy and foetal monitoring has led to the position where women are very passive in the delivery rooms. The critics of the system suggest the effect of much maternal care in Britain and the United States today is to create the feeling of being taken over by an uncaring and mechanistic system in which women are expected to accept the advice of doctors, to have epidural anaesthesia, to lie on their backs so that labour can be monitored, and to expect an ever increasing chance of operative delivery rather than to have their babies naturally.

There is a wealth of evidence to suggest that women are dissatisfied with their experiences of childbirth. Correlations have been found between technological intervention in childbirth and feelings of depression amongst women after giving birth. Women are deprived of a fulfilling start to motherhood by the technology that leaves them with feelings of dissatisfaction, disappointment and no sense of achievement (Oakley, 1980, p.146).

It has been suggested that if there is any satisfaction to be gained from the interventionist approach to labour, it is the doctors who are experiencing it in the form of job satisfaction from the use of high technology. Thus doctors gain satisfaction from the exercise of their skills and knowledge at the expense of women's satisfaction with the childbirth experience (Ehrenreich and English, 1979, p.284).

#### Knowledge about Childbirth

The medicalisation of women's bodies has established childbirth as a specialist field where only doctors have appropriate knowledge. The notion that the medical profession possess superior knowledge in matters relating to childbirth has been consistently opposed by commentators suggesting that childbearing is something that women do have knowledge about, they are, after all, the ones with the physiological equipment for reproduction. It has been argued that women have "*intuitive knowledge (about pregnancy and childbirth) built up from bodily experiences*" (Graham and Oakley, 1981, p.55). Certainly there is evidence to support this view. It appears that when women do refuse interventionist techniques because of their knowledge about pregnancy, childbirth and their own bodies they are likely to deliver a perfectly healthy baby normally (Woodcraft, 1988, pp. 14-15). But there are two factors at work here which act against women accepting or expressing their own knowledge. The first is that when women do display knowledge, intuitive or experiential, about their own bodies, this is often ignored by the medical attendants at the birth:

*"When they sat me up for the epidural, I really felt like pushing and kept saying, 'Wait, wait a minute. I need to push.' They ignored me and gave me the epidural."*

This woman was then given a caesarean. She commented:

*"As soon as they finished stitching me up I knew I wouldn't do this again. For some reason, even then, I knew I could have given birth normally"* (from Perez, 1989, p.138).

Secondly, I would argue that the medicalisation process has stripped women of their knowledge, expertise and their confidence in dealing with pregnancy and childbirth. Along the lines of Illich's 'cultural iatrogenesis' (Illich, 1976) women have, in a sense, relinquished the will to take care of themselves to the higher authority of the medical profession. In other words, the obstetricians have succeeded in impressing their authority on the minds of women. A respondent in Perez's 1989 study commented:

*"I didn't ask any questions. I just trusted everyone. I felt they must know what they were doing"* (from Perez, 1989, p.131).

This point is dramatically illustrated by one of the participants in Sargent and Stark's (1987) study of women's reactions to caesarean birth. The woman who had delivered two previous babies vaginally arrived at the hospital informing the staff that she was in labour but was told that she was not. Not only did the woman know from her previous experiences that she was in labour, she was also aware that this particular labour was not normal. The staff disagreed and told her not to worry. Eventually the woman was given a caesarean. When interviewed by the researchers about the events leading to the surgical delivery the woman complained that the doctors and nurses treated her as if she did not know anything about her own body. But when asked if she felt that the medical staff should have taken her opinions more seriously she said "no", because after all, "the doctor is the specialist" (Sargent and Stark, 1987, p.1272).

What this demonstrates is that even when women do have knowledge about pregnancy and childbirth whether this be intuitive or experiential, and even when they are confident and articulate in asserting their knowledge about their own bodies, they often still bow to the superior knowledge of the medical authorities who are seen to be the experts in



This woman was then given a caesarean. She commented:

*"As soon as they finished stitching me up I knew I wouldn't do this again. For some reason, even then, I knew I could have given birth normally"* (from Perez, 1989, p.138).

Secondly, I would argue that the medicalisation process has stripped women of their knowledge, expertise and their confidence in dealing with pregnancy and childbirth. Along the lines of Illich's 'cultural iatrogenesis' (Illich, 1976) women have, in a sense, relinquished the will to take care of themselves to the higher authority of the medical profession. In other words, the obstetricians have succeeded in impressing their authority on the minds of women. A respondent in Perez's 1989 study commented:

*"I didn't ask any questions. I just trusted everyone. I felt they must know what they were doing"* (from Perez, 1989, p.131).

This point is dramatically illustrated by one of the participants in Sargent and Stark's (1987) study of women's reactions to caesarean birth. The woman who had delivered two previous babies vaginally arrived at the hospital informing the staff that she was in labour but was told that she was not. Not only did the woman know from her previous experiences that she was in labour, she was also aware that this particular labour was not normal. The staff disagreed and told her not to worry. Eventually the woman was given a caesarean. When interviewed by the researchers about the events leading to the surgical delivery the woman complained that the doctors and nurses treated her as if she did not know anything about her own body. But when asked if she felt that the medical staff should have taken her opinions more seriously she said "no", because after all, "the doctor is the specialist" (Sargent and Stark, 1987, p.1272).

What this demonstrates is that even when women do have knowledge about pregnancy and childbirth whether this be intuitive or experiential, and even when they are confident and articulate in asserting their knowledge about their own bodies, they often still bow to the superior knowledge of the medical authorities who are seen to be the experts in

matters relating to the human body. This kind of evidence clearly shows an acceptance of the medicalisation of birth and expectation of technological intervention at delivery.

It further demonstrates the fact that doctors have successfully inculcated the notion that they are the ones with the expertise in childbirth in their own minds and the minds of those in whose interest they should be working - the women.

This is highlighted by the fact that when women do not receive all the information they require during childbirth, they tend, on the whole, to be very satisfied with the care and information they have received. The implication of this is that when information is not given to women it is perceived by those women to be not relevant or unnecessary, after all, 'doctor knows best'. The expression of satisfaction amongst women after failure to obtain the information required highlights the subtlety of the exercise of power implicit in the doctor-patient relationship (Shapiro et al., 1983, p.145).

The medical profession's overwhelming sense of ownership of knowledge about pregnancy and childbirth has been highlighted in the United States recently with doctors requesting, and often receiving, the backing of the courts to perform caesarean sections on women who have refused to grant consent for the operation (Brahams, 1988, p.361; Morgan, 1992, p.142). The trend continues despite the paucity of evidence to justify such action in terms of maternal, perinatal or neonatal outcomes. A national survey in the United States in 1987 found 15 cases of attempts to legally enforce caesarean sections. 13 of the 15 requests were granted by the courts. Only two of the babies delivered by these operations were actually found to be ill after delivery. Given the higher mortality and morbidity rates associated with abdominal birth it could be argued that court-ordered caesarean sections adversely affect maternal and infant health (Kolder et al., 1987, in C/SEC, 1987, p.3) and demonstrates that the presumed authority of doctors is not necessarily in the interests of women and their babies.

This sort of court order made 'on behalf of the foetus' is not unusual in the States and the possibility of such orders being made in Britain is not so remote as cases decided in the British courts in the late 1980s have shown. Towards the end of 1987 barristers were briefed by a local authority to advise on ways of obtaining an order requiring a woman to go to hospital and, if necessary, undergo a caesarean section (Woodcraft, 1988, pp.14-15). Such evidence indicates the unequivocal sense of knowledge and expertise amongst doctors regarding childbirth, to the extent that women's rights of consent are overruled in favour of doctors' decisions.

### Power

A disturbing trend that is emerging in the use of court orders forcing women to have caesarean sections against their will is the abuse of power, based on status differentials. In the United States, all women ordered to have medical intervention so far have been public assistance patients, that is, those lower income women who do not have private health care insurance. 81% of those women were black, Asian or Hispanic; 24% had English as a second language. In other words, it is the poor, black and immigrant women who are predominantly the ones being forced to undergo operations against their will (Woodcraft, 1988, p.14).

Furthermore, power comes into play in the differing experiences and expectations between the medical profession as providers of maternity services and women as receivers of maternity care, where there is an unequal relationship between the two. In this relationship it is the doctors who hold the power. Women are passive objects in the labour theatre. They are subject to procedures such as episiotomy, which are often introduced without adequate testing of their effectiveness and, when the research has been carried out, have been found to be ineffective (Oakley, 1977, p.22). Women are not given sufficient information about their condition and that of their about-to-be-born child. All of this leads to feelings of frustration, powerlessness and alienation from the conduct of childbirth.

In the medical definition of care, patient subservience and obedience is paramount. It seems that if women question the decisions of the

doctors they are met with hostility from them.

*"I never saw the baby when it came out. I kept asking to see the baby while I was fighting to keep my eyes open. The doctor said to me, 'I have never seen someone complain so much at such a happy occasion.' I wasn't complaining; I was asking to see my baby"* (from Perez, 1989, p.137).

On the other hand, if women request interventionist techniques such as induction, it appears that this is accepted as "legitimate patient behaviour" (Graham and Oakley, 1981, p.63). Thus by requesting intervention the woman is displaying two important aspects of patient behaviour, that is, first of all accepting the notion that medical control and intervention equals good (safe) childbirth, and secondly, it implies the acceptance of the doctor's superior knowledge and expertise (Graham and Oakley, 1981, p.63). In other words, women must be seen to acknowledge the power of the doctors in order to be acceptable in the hospital setting.

The technological management of childbirth also enables doctors to exert power over other professional groups within the hospital hierarchy. When the decision is made to use technology to deliver a child, control is taken out of the hands of everyone except the obstetricians. Midwives therefore lose out when technological management of labour takes over and can experience a sense of regret at having to relinquish control over the birth process as they take on the role of assistant rather than midwife (Inch, 1986, p.67). Whilst often sympathising with women in labour over their lack of control, midwives may also resent the technological management of labour as it shifts the balance of power from them to the obstetricians (Cartwright, 1979, p.155).

### The Right to Information

One very important process by which doctors maintain power over women as patients is by the amount of information they impart. The sharing of information can be seen as equivalent to sharing power, whilst withholding information means that the doctor maintains complete power.

For women to achieve a sense of participation in childbirth they need

to be informed of what is happening to them during the delivery. Appropriate information during childbirth is equated with more positive experiences overall for women giving birth. Women's satisfaction with their experience of labour and delivery is related to whether or not they feel that they have received enough information (Shapiro et al., 1983, p.141; Fawcett and Burritt, 1985, p.229). However, it appears that many women are unhappy with the amount of information they receive (Cartwright, 1979, p.163; Shapiro et al., 1983, p.141). Lack of information during delivery affects women's perceptions of the birth process. In Martin's 1990 study of maternal satisfaction, over three quarters (77%) of the women who said that they had received insufficient information were dissatisfied with the management of their labour and delivery (Martin, 1990, p.158).

However, the evidence available points to the fact that the conflicting perceptions of women and obstetricians leads to a breakdown of communication between women in childbirth and the health care professionals. It appears that obstetricians are unaware of the amount and nature of information that should be exchanged. Shapiro et al. (1983) found that obstetricians underestimate the amount of information required by women and, not surprisingly therefore, the majority of women do not receive all the information they want.

#### Abuse of Power

Evidence suggests that the ethos of doctors as 'experts' gives them the right to carry out procedures which are often quite intrusive without explanation to the woman concerned.

*"I went to the hospital because I was unsure about whether I was in labor or not. They told me I was in labor and I was 4 to 5 cm dilated. When they examined me they took out a stick and I asked what are you doing to me? About that time fluid rushed out and they told me they had broken my bag of waters. They put a wire on the baby's head but no one said why" (from Perez, 1989, p.133).*

Women asking questions about treatment and/or their condition are seen as 'difficult' rather than simply wanting to know what is happening.

*"The doctor came in and told me I had to have an epidural. I told him I didn't want one and why did I have to have*

one? He said, 'Because you're not progressing enough and in case I have to do a C section you need it.' He just called the anesthesiologist. They gave me an epidural. My husband and I were both scared.

"At about 6.30pm they told me I was not progressing but to start pushing. That's all they ever said to me, 'You're not progressing, you're not progressing.' I couldn't understand why they wanted me to push if I wasn't progressing. But I did what they said and began pushing.

"At 7pm they came in and told me again, no progress, and that I would need a C section" (from Perez, 1989, p.133).

There appears to be an attitude amongst medical professionals that women either do not need to know all the details about their condition or that they will not understand the medical implications even if they were given the information.

#### Giving the Wrong Information

Unfortunately however, when attempts are made to inform women about their condition and treatment, such assurances often lack a factual basis (Chalmers and Richards, 1977, p.48). Thus, the correct message does not always get across and women are left at best, partially informed and, at worst, misinformed.

The evidence suggests that when women are given information during delivery they may not be given the correct information and there may not be agreement between medical staff over the facts of the case so that women are inappropriately informed. Perez, a monitrice (professional labour attendant), in her 1989 study of the causes of caesarean section found discrepancies between what women and their families remembered of the birth and what was entered in the women's medical records as well as differences in the facts about particular cases between nurses' and physicians' notes (Perez, 1989, p.130). Furthermore, she found that some women had been lied to or misinformed about their treatment. Of one case she states:

*"It is unforgivable that the mother was given medication without her knowledge or consent, and that she was told by the physician that she had made no progress at all"* (Perez, 1989, p.136).

Evidence suggests that women who have caesarean births often do not

know why the caesareans were performed, give the wrong explanation when compared to their medical notes or are only partially correct in their explanations (Hillan, 1992, p.172). Similarly, there are often discrepancies between the treatment that women receive and the treatment that is recorded in their medical notes.

*"My record says they gave me oxygen by mask. This never happened" (from Perez, 1989, p.138).*

### Withholding Information

A common way that women are denied knowledge about their treatment is by the withholding of information:

*"I never knew how I was dilating. No one ever said anything after they checked me. I never knew they gave me pitocin. I didn't know I was ready to push then" (from Perez, 1989, p.135).*

*"They gave me something in my IV but never told me what it was" (from Perez, 1989, p.137).*

*"They offered me pain medicine repeatedly but I always refused. I knew they gave me pitocin but was shocked to find out later that they had given me pain medicine against my wishes" (from Perez, 1989, p.136).*

Obviously if women are to make decisions regarding their treatment in hospital it is imperative that they receive appropriate and accurate information. One woman in Perez's study said:

*"At no time was I told that I had dilated at all. ... I agreed to the C section with the understanding that I had not dilated at all and had made absolutely no progress since my admission. ... I would never have submitted myself for a C section at that time if I had known that I was dilating. I was prepared for a long labor as my mother had very long labors. If I had just known I made some progress" (from Perez, 1989, p.137).*

The withholding of information indicates a misuse of power by the obstetricians. Women can not have a say in what happens to them if they do not know the details of their condition. Withholding information is therefore a very effective way for doctors to maintain power and control.

### Whose Role is it to Inform Women?

An alternative explanation for women being ill informed about their treatment is that there is confusion amongst the hospital staff in terms of who has responsibility for informing women of all that is happening. What this means is that women are told nothing or very little as all staff believe that someone else has already taken responsibility for informing them. Hillan found that some women in her study said that they were never told directly why their caesareans were necessary but picked up snippets of information from overheard conversations between the medical staff (Hillan, 1992, p.172).

It has been suggested that the nursing staff should take a more active role in informing women of what is happening, or about to happen, to them. Midwives are in a position to ensure that women have a more dominant and less subservient role in the delivery process. They can facilitate communication between women and their doctors and ensure that the women's needs are not ignored or suppressed (Cartwright, 1979, p.165). The suggestion being that whereas decisions about whether to perform the caesarean, which anaesthetic to use and whether the partner should be allowed in the operating theatre, are made by the physician, information given to women about caesarean birth can be controlled by nurses and therefore they need to take a more active role in ensuring that women are fully informed (Fawcett, 1990, p.1419). This may be a possible scenario when the caesarean is elective and there is time for the woman to be informed of her options and the likely course of events. However, in an emergency situation, with changes taking place rapidly, this may not always be possible. It is often the case that the woman and her midwife will have little time to adjust to the need for a caesarean. Sally Inch suggests that although speed is essential, the midwife knows that the faster things happen the more alarming it will be for the woman and her partner. Therefore explanations about the preparation and procedure of surgery are hurried and unlikely to be taken in by the woman and/or her partner (Inch, 1986, p.67).

However, it appears that even when the nursing staff do take an active role in giving information to caesarean patients this is not always in the interest of the women concerned. Hillan found lack of support and conflicting advice from midwives, especially in postnatal wards



(Hillan, 1992, p.165).

It appears that one of the reasons why women may be ill-informed during delivery is that there is not always agreement between different professional groups as to the details of the case. Discrepancies have been found between the notes of doctors and those made by the nurses.

*"I was disturbed by the discrepancy between the nurse's and physician's notes as to the second stage. The nurse noted that second stage was never reached and that she started the patient pushing at 9 cm dilation, and that pushing continued for 37 minutes. The doctor recorded that the mother was completely dilated, yet that she had a rim of cervix, and she pushed for two hours" (Perez, 1989, p.133).*

It is not surprising therefore that women are either not given enough information or are inappropriately informed about their condition when such startling differences exist between perceptions of the case by different professionals.

#### Continuity of Care

The opposing perceptions of childbirth held by women and the male-dominated medical profession leads to an understandable lack of communication between the two. This communication is further impeded by the fact that the majority of women see different doctors each time they attend the hospital for antenatal check-ups. This is a problem for the women in particular because they are not able to develop relationships with their physicians. The majority of women prefer continuity of care during pregnancy, that is, they wish to be able to see the same doctor or midwife throughout (Graham and Oakley, 1981, p.66; Martin, 1990, p.155). Yet very few get continuity of care and at least one in three women never see the same person throughout their maternity care (Martin, 1990, p.155).

It is encouraging to see that the recently published Cumberlege Report recommends continuity of maternity care carried out primarily by midwives (Expert Maternity Group, 1993). This represents a long-awaited recognition amongst an 'expert maternity group' of the importance of continuity of care, and will hopefully be reflected in government policy and health service action in the near future.

Continuity of care before, during and after caesarean delivery is much less common than with vaginal delivery (Inch, 1986, p.67). This may be one reason why women having caesareans tend to report less satisfaction with the birth process than those delivering vaginally. Where women do receive continuity of care they are more likely to rate their antenatal care as 'good' or 'very good' (Martin, 1990, p.155). This again highlights the different perception and experience of women and the medical profession - for women childbirth is a single immeasurably important life event, for the medical practitioners it is merely a part of a busy daily routine.

Another explanation is that whilst giving information to women the hospital staff are fulfilling their professional obligations, it does not guarantee that the patient understands the exact nature of the treatment and the implications of it. Information given by medical practitioners may not always be adequate, perhaps because of insufficient time and because medical terminology can be poorly understood by patients (Kanto et al., 1990, pp.39-40). Or it may be that at the time the decision to perform the caesarean was made the women may not have been in a position to fully understand (Hillan, 1992, p.172). Similarly Wendy Savage suggests that as a woman in hospital tends to meet several different professionals who she does not know who may explain things differently from those who know her and at the wrong level, this is likely to increase anxiety for the patient and could lead to misunderstandings (Savage, 1986, p.63).

### Informed Consent

The notion of consent to medical intervention in childbirth becomes a nonsense if women are not adequately informed. For example, when women are asked to consent to an emergency caesarean operation, they do so without really understanding what the procedure entails. In such cases it is questionable whether the consent given by the woman represents a free choice. Women have no time to reflect in such cases. They may be manipulated by the physician's concentration on delivery as a potential disaster, feel forced into the 'hospital's surgical agenda' (Guillemin, 1981, p.18), or feel pressurised into conforming to the expectations of the patient role in what is, after all, an emergency situation. It is a nonsense therefore to expect women to be prepared for such

circumstances. This position has been summed-up very graphically by Guillemin (1981) who said that this is:

*"somewhat akin to espousing military preparedness while remaining at heart a pacifist; it is very difficult to avoid enlistment once the vote has been cast for professionalism" (Guillemin, 1981, p.18).*

In conclusion it is clear is that a crucial determinant of satisfaction with maternity care at all stages is the quality of the communication between women and the professional staff. In 1985 the WHO stated:

*"The training of health professionals should include communication techniques in order to promote sensitive exchange of information between members of the health team and the pregnant woman and her family" (WHO, 1985, p.436).*

Yet the evidence available suggests that the conflicting perceptions between obstetricians and women in childbirth continue to hinder communication leading to a less satisfactory experience for women. Thus not only is it the case that the medical professions need to be encouraged to impart information to women to empower them to participate in decision-making and to enable them to feel as though they have taken a full and meaningful role in the deliveries of their babies, but health practitioners need to ensure that the information given to women is accurate and imparted at a level that is accessible to the women concerned. Only then will a 'successful' outcome be achieved by women as well as doctors.

## Chapter Ten

### CAESAREAN BIRTH TODAY

---

#### CAESAREAN SECTION RATES

The rates of intervention in childbirth in general have increased in recent years in England, Wales and Scotland. The most significant rises have been in the rates of caesarean section. In Britain the caesarean rate rose from 2.7% of all births in 1958 to 11% in 1986. The rate for 1992 was almost 13% (Savage and Francome, 1993, p.494).

#### Regional Variations

Overall rates for caesarean section mask significant regional variations. A recent study in Great Britain found that the caesarean rates in England range from 10.1% in the South Western region to 12.9% in South East Thames. All the Thames regions have rates of 12.2% or above whereas Trent, North Western and Northern have rates below 11.4%. Scotland has a rate of 14.2% and for Wales it is 13.5%. However, most of the Welsh Health Authorities have rates below 13%, yet two have rates of 14% and one has an unprecedented 17.5% caesarean section rate (Savage and Francome, 1993, p.494).

Caesarean section rates also vary between hospitals from 6.8% in one Northern District General Hospital to 20.2% in an inner city teaching hospital. On the whole, teaching hospitals appear to have much higher caesarean section rates than non-teaching hospitals. The most frequently cited reason for the difference is that teaching hospitals are more likely to treat 'high risk' women who have been referred to them. However, this does not appear to be the case as there are marked differences in caesarean rates between teaching hospitals in general and, more specifically, between those hospitals in London and those in other areas, whereas the range of complications are likely to be the same. Furthermore, in Scotland there is little difference between caesarean rates for teaching hospitals and non-teaching hospitals despite the increased referral rate of higher risk patients to the

teaching hospitals (Savage and Francome, 1993, p.494).

Such regional and hospital variations cannot be accounted for in terms differences in the population of women served by these regions or hospitals, but rather they point to differences in obstetrical practice and policy. This point is further highlighted by the fact that the Dumfries and Galloway area had a caesarean section rate of 15.8% in 1985. Yet during 1986, while cases were being scrutinised and interest in the rising incidence of caesarean section was high, the rate dropped to 11.6% (Urquhart et al., 1987, p.316) suggesting that factors other than medical necessity were affecting the number of caesareans being performed.

#### Socio-Economic Factors

Where population differences in caesarean section rates are evident (as in the United States) they are closely related to social class and appear to follow an inverse care law, that is, the lower the social class, the higher the medical risk and the lower the medical attention and treatment available (Chalmers and Richards, 1977, p.46; Hurst and Summey, 1984, p.621). Thus it is the wealthier women who are receiving more caesarean sections than their counterparts in the lower socio-economic groupings. In the United States this class differential is related to the difference between private and public health care with the caesarean section rates for private hospitals being substantially higher than those of public hospitals. In 1986 the caesarean section rate in the United States was 24.4%. Women with private insurance had the highest caesarean section rate at 29.1% (Stafford, 1990, p.313, Taffel et al., 1992, p.21). Ownership of private insurance also seems to affect whether women will have a vaginal birth after caesarean (VBAC) as this occurs more than twice as frequently in women not covered by private insurance (Stafford, 1990, p.313). The implication here is that, as surgical birth is more lucrative, caesareans are being performed rather than allowing women a trial of labour for subsequent pregnancies.

Similarly in the Lazio region of Italy a strong relationship was found between mode of hospital payment and the caesarean section rate. Women in the private hospitals had the highest rates at 34.7% whilst the

National Health Service public hospitals had a rate of 21.3% (Bertollini et al., 1992, p.258).

In Brazil, nearly 32% of all babies born are delivered by caesarean section (Taffel et al., 1992, p.22). A 1984 study demonstrated the marked differences in caesarean section rates for women in the different socio-economic groups. The rate was 7.5% among the poor, uninsured women; 9.5% among publicly insured; and 49.6% among the wealthier private patients (Janowitz et al., 1984, p.515). More recently in the private clinics in urban areas the caesarean section rate is approaching 90% (Macnair, 1992, p.18). What this points to, once again, is that caesarean section rates are not dependent upon medical necessity but, in this case, the result of socio-economic factors.

It appears that England and Wales are following the American example. In 1979 Ann Cartwright demonstrated that the induction rate of women in the private sector was twice the national average (Cartwright, 1979, p.19) and it was suggested that a similar finding would emerge from analysis of the caesarean section rates (Richards, 1979, p.344). Evidence is now available to support this view. In 1980 women having babies in National Health Service (NHS) hospitals were found to have a caesarean rate of 9% whilst women in pay-beds (private) within the NHS hospitals had a rate of 19.6% (Macfarlane and Mugford, 1986, p.40).

#### Caesarean Rates and Perinatal/Neonatal Outcomes

Whilst the caesarean section rates have risen in most countries for which data are available, perinatal outcomes have improved significantly. This has led to the suggestion that there is a direct causal relationship between high caesarean rates and lower perinatal mortality rates (Williams and Chen, 1982, in Porreco, 1985, p.309). However, the reduction in perinatal and neonatal mortality rates can be explained in other ways, the most likely explanation being better overall living conditions and levels of health in those populations experiencing better perinatal outcomes.

The high caesarean section rate cannot be justified in terms of reductions in perinatal and neonatal mortality. Despite technological advances in childbirth intervention in the United States, infant mortality rates have remained behind those of other industrialised countries (Romalis, 1985, p.186). Holland in the early 1980s had only a fifth of the United States' caesarean rate but a much lower infant death rate (Francome, 1990, p.81). In Dublin over a 15 year period, perinatal mortality rates improved parallel to those in the United States although the incidence of caesarean section remained substantially unchanged in Dublin and quadrupled in America. Infant deaths dropped from 42 per 1000 live births to 17 per 1000 live births while the caesarean section rate remained constant at between 4 and 5% (O'Driscoll and Foley, 1983, p.4). Similarly in New York City between 1967-8 and 1976-7 neonatal mortality decreased markedly, particularly in the section of infants weighing between 1000-2500 grams. But the decrease in the neonatal mortality rate for this group of infants was common to both primary caesarean and vaginal births. The decreases could be due to other factors such as improvements in neonatal intensive care. For births above 2500 grams the decrease in neonatal mortality was slight.

*"No decrease was found in neonatal mortality among all primary cesarean births when allowing for shifts that may have occurred from forceps to cesarean delivery" (NIH., 1981, p.175).*

Thus there is no reason to suggest that an increase in the caesarean rate is a causal factor in the decrease in perinatal or neonatal mortality.

Further, it appears that perinatal and neonatal outcomes can be improved whilst reducing rates of caesarean section. The University Medical Center of Jacksonville (Florida) accomplished a reduction in its caesarean section rates whilst improving perinatal and neonatal outcomes over a four-year period of study (Sanchez-Ramos et al., 1990, p.1084). What the evidence does suggest is that beyond a caesarean rate of 6% no improvements in perinatal or neonatal outcomes are achieved (Francome and Huntingford, 1980, p.361).

It therefore appears that high caesarean rates do not lead to lower rates of infant death and it has been suggested that perinatal outcomes may even be compromised by surgical delivery (Porreco, 1985, p.309-10; Lomas and Enkin, 1989, p.1184; Rydhström et al., 1990, p.230). One Vienna Clinic adopted a non-interventionist policy regarding the treatment of women in labour which resulted in a caesarean section rate ten times lower than the rest of Vienna where technical aids were widely used in all hospitals. Researchers found that the perinatal mortality rates for the clinic were not higher, and the maternal and postneonatal mortality rates were significantly lower, than the corresponding rates for Vienna (Rockenschaub, 1990, p.977).

Evidence therefore refutes the claims that childbirth is made safer by the application of high technology and demonstrates that a less interventionist approach can lead to better perinatal mortality rates.

What the evidence does suggest is that the rising caesarean section rate is linked to factors which do not relate to the population of women concerned or the desire to keep perinatal and neonatal mortality rates at the lowest possible level. (These factors are discussed below,).

#### Have Caesarean Rates Stabilised?

It has been suggested that, although the trend of increased use of caesarean section continues, the rate of the escalation is beginning to slow down due to the increased use of vaginal birth after caesarean (VBAC), increased recognition of the imprecision of electronic foetal monitoring, greater public awareness and professional peer review activities (Marieskind, 1989, p.196). In the United States, by the late 1980s, there was some evidence to suggest that the caesarean rate had stabilised. From a rate of 24.1% in 1986 it rose slightly to 24.4% in 1987 and not very significantly again to 24.7% in 1988. The rate of primary caesareans in 1988 of 17.5% was almost identical to the rate of 17.4% for the two previous years (Sanchez-Ramos et al., 1990, pp.1082-3). More recent evidence from America suggests that the rate of

<sup>1</sup> See discussion: 'Non-Medical Variables Affecting the Caesarean Section Rate'. p.109.



caesareans may be decreasing as it was estimated to be 20.4% in 1990 (Taffel et al., 1992, p.22). It has been suggested that the stabilisation of caesarean rates is in large part due to the increased use of VBAC (Sanchez-Ramos et al., 1990, pp.1082-3) which increased from 9.8% in 1987 to 12.6% in 1988 representing the largest ever observed annual increase (Taffel et al., 1990, p.199). However, although the caesarean section rate in Great Britain rose only slightly from 11% in 1986 to almost 13% in 1992, the rate of increase does not appear to have stabilised or reversed. During the period from 1985 to 1989, it rose by 0.2% each year. From 1989 to 1992 the rate of increase was 0.3% per annum (Francome et al., 1993, p.1).

#### INTERNATIONAL COMPARISON OF CAESAREAN SECTION RATES

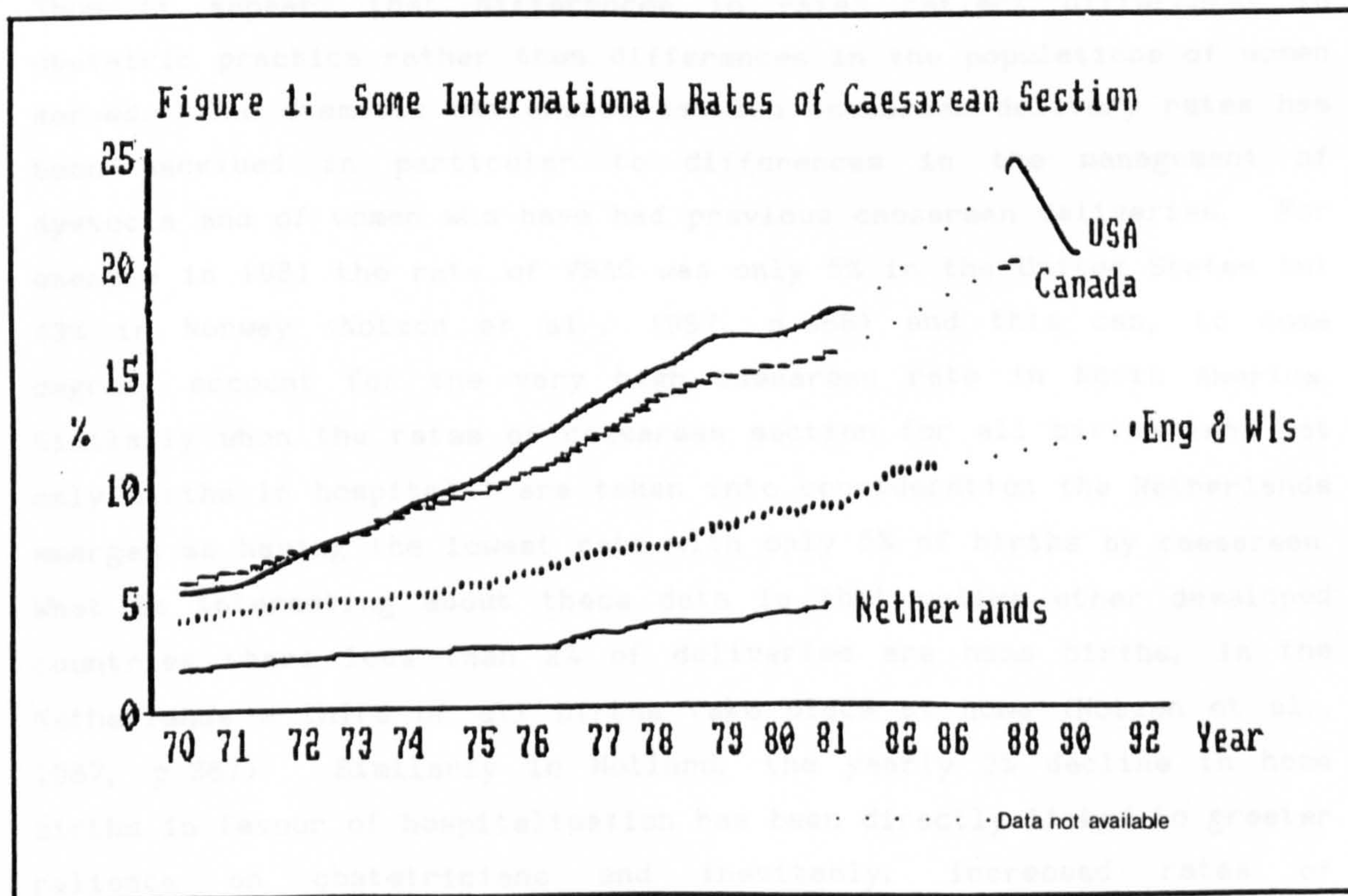
Increase in caesarean section rates is an international phenomena, although there are marked differences in the rates between countries. Brazil has the highest rate of caesareans in the world where nearly one in three (32%) of births are abdominal. Puerto Rico has the next highest rate of caesareans where three in ten (29%) births are by caesarean. The United States has the third highest level with nearly one birth in four being an operative delivery (Taffel et al., 1992, p.22). This, despite the World Health Organisation (WHO) statement in 1985:

*"Countries with some of the lowest perinatal mortality rates in the world have caesarean section rates of less than 10%. There is no justification for any region to have a rate higher than 10-15%" (WHO, 1985, p.437).*

A study of 19 industrialised countries of Europe, North America and the Pacific showed sharp differences in the caesarean section rates in 1981 from a low of 5% of hospital births in Czechoslovakia to a high of 18% in the United States (Notzon et al., 1987, p.386). Although the rate of caesareans is highest in the United States, it appears that the rates of increase in most countries are tending to converge (see *Figure 1*).

"Continued increases in the cesarean rate have become the norm in every country we studied" (Notzon et al., 1987, p.389).

The lowest rates of caesarean section have been identified in European countries, Czechoslovakia being the lowest with 5%, then Belgium with 7%, followed by Hungary and Norway both with 9% (Notzon et al., 1987, p.387). The best estimates for Australia indicate that the percentage of deliveries by caesarean rose from 4.2% in 1970 to 16.9% in 1986, (Renwick, 1991, p.300). The primary caesarean section rate in Tasmania rose from 4.3% in 1975 to 6.6% in 1982 (Murray-Arthur and Correy, 1984, p.242). Italy experienced an increase in caesarean section rates from 11.2% in 1980 to 17.5% in 1987 (Signorelli et al., 1991, in Savage and Francome, 1993, p.493). In Canada the caesarean rate rose from 5.7% in 1970 to 19.9% in 1988 (Lomas and Enkin, 1989, p.1185). In Scotland the caesarean section rate rose steadily from 4.7% in 1970 to 12.8% in 1982 (McIlwaine et al., 1985, p.302).



These figures are estimates as there are no uniform sources of data providing national figures for caesarean rates in Australia.

Despite having the highest caesarean section rate with nearly 32% of all babies being born by caesarean section, the Brazilian rate is also expected to rise. One estimation put it at 60% by the year 2000 (Macnair, 1992, p.18). Although this seems excessive and rates are unlikely to rise that high, such speculations may serve as a warning about what may happen if caesarean rates are permitted to increase unchecked.

However, national figures tend to conceal marked differences relating to areas and hospitals. For example whilst the caesarean rate for Italy in 1987 was 17.5%, the Lazio region had a rate of 24.3% (Bertollini et al., 1992, p.258). Similarly whilst the overall rate for Wales is currently 13.5% the rate for one region is 17.5% (Savage and Francome, 1993, p.494). Although some population differences do exist, these cannot account for the overall difference in caesarean rates.

Thus it appears that differences in rates reflect differences in obstetric practice rather than differences in the populations of women served. The dramatic difference between caesarean delivery rates has been ascribed in particular to differences in the management of dystocia and of women who have had previous caesarean deliveries. For example in 1981 the rate of VBAC was only 5% in the United States but 43% in Norway (Notzon et al., 1987, p.386) and this can, to some degree, account for the very high caesarean rate in North America. Similarly when the rates of caesarean section for all births (and not only births in hospitals) are taken into consideration the Netherlands emerges as having the lowest rate with only 5% of births by caesarean. What is interesting about these data is that unlike other developed countries where less than 2% of deliveries are home births, in the Netherlands a third of all births take place at home (Notzon et al., 1987, p.387). Similarly in Holland, the yearly 2% decline in home births in favour of hospitalisation has been directly linked to greater reliance on obstetricians and inevitably, increased rates of intervention including caesarean section (Guillemin, 1981, p.17). What this demonstrates is that international caesarean rates are dependent on factors such as hospitalisation, medical tradition and obstetricians' preference rather than strict medical necessity.

### Caesarean Section in the Developing World

Although data on caesarean section rates in developing countries is less rigourously collected than in other areas, some trends are identifiable. For those countries where data are available it appears that the caesarean rates are comparable to, or even higher than those reported in developed countries (Notzon et al., 1987, p.386).

However, there are other factors to consider here. In some cultures women who cannot deliver vaginally are stigmatised. For example, in rural Eastern Nigeria women fear caesarean section as they might be considered abnormal for not being able to deliver vaginally. Caesarean section is also threatening to them because they fear blood transfusion or involuntary sterilisation (practiced in some hospitals after repeat caesareans). To those women a caesarean section may mean more than the delivery of a healthy baby or the saving of their lives. The abdominal scar will act as a constant reminder of their incapacity to deliver vaginally. Women may be considered 'mutilated' by those who represent western customs and ignore traditional concepts (Engelkes and van Roosmalen, 1992, p.790). Therefore, although some similarity in increasing caesarean section rates can be observed, reasoning and influences on those rates may be very different in the developing world to those at play in western industrialised countries.

## Chapter Eleven

### INDICATIONS FOR CAESAREAN SECTION

---

#### MEDICAL INDICATIONS FOR PERFORMING THE CAESAREAN SECTION OPERATION IN THE LATE TWENTIETH CENTURY

Cephalopelvic Disproportion (*Pelvis too small or baby too large to exit via vaginal passage*).

Historically the condition most often occurring under this heading was that where the baby's head was too large to pass through the pelvic girdle. This may be due to the size or position of the baby or the size or shape of the mother's pelvis. More recently the term has been used to describe variations in the baby's position in the womb which may make the passage through the vagina difficult or dangerous. Although cephalopelvic disproportion is seen as an absolute indication for caesarean section (that is, there is no other option), the use of caesarean section for all cases has been questioned (O'Driscoll et al., 1970, p. 385).

#### Dystocia

This term is used to describe a variety of different classifications of abnormal labour. Most commonly the term relates to complications regarding length of labour and foetal position or size but can be extended to include other problems occurring during the process of labour itself. Because of the vagueness in the definition of this diagnostic category it lends itself to individual interpretation and possibly over-use in situations where medical staff are unclear of how to proceed or are unwilling to proceed with a difficult labour.

Between 1970-78 dystocia was responsible for the largest contribution to the overall rise in the caesarean rate in the United States, accounting for as much as 30% of the total. It appears that dystocia is increasingly being used as an indication for caesarean section. Between 1979 and 1980 the overall caesarean birth rate did not increase significantly in the United States but the distribution of caesarean

sections by indication did change markedly. This change in distribution was primarily due to a shift in the use of dystocia as an indication from 24% to 30% of total caesareans (Phillips et al., 1982, p.1083).

Therefore dystocia is prominently associated with increases in primary caesarean rates, and it is for this reason that the use of caesarean section for all cases of dystocia has been questioned (O'Driscoll et al., 1984, p.485) and the American National Institutes of Health's (NIH) report 'Caesarean Childbirth' (1981) recommended that this diagnostic category be thoroughly examined and reviewed (NIH, 1981, p.9).

#### Foetal Distress

Like dystocia, the term 'foetal distress' envelopes many conditions of the foetus.

*"Fetal distress is a widely used but poorly defined term. This confusion of definition compounds the difficulty of making an accurate diagnosis and initiation of appropriate treatment"* (Parer and Livingston, 1990, p.1421).

In general, foetal distress means that the baby is showing evidence of suffering from lack of oxygen (Asphyxia) which could lead to brain damage. The commonest signs are that the baby becomes tired and moves less; it passes the contents of its bowel into the amniotic fluid, or that its heartbeat becomes abnormal (Huntingford, 1985, p.99). However, the vagueness of definition means that it is open to individual interpretation and thus can be misused in cases where the problem is unclear. The increased use of the diagnostic category of foetal distress over the past twenty years can be associated with the increases in the use of technology in the labour ward particularly as it relates to Electronic Foetal Monitoring (EFM).

The increasing trend in using such non-specific terms has implications for the amount and type of information available to the women being operated on. The use of categories such as dystocia and foetal distress without fuller explanation can be seen as one step in the disempowerment and alienation of women in the process of childbirth.

### Repeat Caesarean

The practice of repeat caesareans began in the early 1900s when the rationale behind it had a logical medical basis<sup>1</sup>. At that time the vertical incision in the body of the uterus ('classical') predominated and such incisions were prone to rupture particularly during the rigours of labour. But the low segment transverse uterine incision ('low cervical' section) in general use today is much less vulnerable to rupture and is associated with lower incidence of maternal and foetal morbidity and mortality. Thus the conviction that many obstetricians still carry today that 'once a caesarean always a caesarean' appears to be more to do with tradition and a reluctance to change rather than being based on sound medical reasoning<sup>2</sup>.

### Breech Presentation

Breech presentation means that the foetus is positioned feet or bottom down for the time leading to delivery instead of the usual position of head first (vertex presentation). Breech presentations are associated with increased neonatal mortality and morbidity when compared to vertex presentation irrespective of whether delivery is vaginal or by caesarean. Despite the fact that skilled practitioners can turn the foetus round in utero (external cephalic version) there is an increasing trend for caesareans to be performed for breech presentation. In the United States the proportion of breech presentations delivered by caesarean rose from 11.6% in 1970 to 60.1% by 1978 (NIH, 1981, p.13). A similar trend is identifiable in this country. Statistics for the early 1980s in Britain show that about 40% of breech presentations were delivered in this way. However in a more recent calculation it emerged that 72% of breech presentation in one health authority region in this country were by caesarean (Thorpe-Beeston et al., 1992, p.746). Furthermore, it has been suggested that a perinatal mortality rate of almost 1% amongst apparently healthy infants presenting in breech who are delivered vaginally is justification for the wholesale performing of caesareans for breech

<sup>1</sup> See discussion: 'Once a Caesarean, Always a Caesarean?', p59.

<sup>2</sup> See discussion: 'Repeat Caesareans and Vaginal Birth After Caesarean', p.115.

presentation and that most mothers would opt for caesarean birth if informed of these statistics prior to delivery (Thorpe-Beeston et al., 1992, p. 747).

An important question to consider here is whether the performing of caesarean sections improves outcome for breech presentations. Data from New York City between 1967 and 1977 showed that for babies with a birth weight over 2500 grams, caesarean delivery of breech presentations indicated a neonatal mortality rate five-times better than the rate for vaginal delivery of breech presentation (NIH, 1981, p.13). Similarly a British study found better perinatal mortality rates for breech presentations delivered by caesarean than those delivered vaginally, 0.03% compared to 0.83% respectively (Thorpe-Beeston et al., 1992, p. 746).

#### Placenta Praevia

Meaning that the placenta is covering the neck of the womb (often causing bleeding) and indicating that a vaginal delivery would be problematic or impossible.

#### Multiple Births

Twins account for about one in 100 births in the United Kingdom and the incidence of triplets is normally about one in 6,000. It is usually safe for twins and triplets to be born vaginally, yet many twins and most triplets are now born by caesarean. Quadruplets and higher order births are usually born by caesarean, but the evidence of this practice is scant (Francome et al., 1993, p.69). The caesarean rate has risen for twins, particularly the second twin, but this rise does not seem justified by the evidence (Rydhström et al., 1990, p.229).

#### Other Maternal and Foetal Considerations

Many maternal and foetal conditions lead to a caesarean birth because of the need to deliver the infant as early as possible. For example in cases of maternal diabetes, pregnancy-induced hypertension and erythroblastosis fetalis. However these conditions combined constitute a small contribution to the overall caesarean section rates (NIH, 1981, p. 15).



## Overall

An examination of the major indications for caesarean section in the early 1980s revealed that whilst the overall caesarean rate for some countries were stabilising, there was a shift in the distribution of caesareans for the various indications. The pattern of this change being towards the increasing use of dystocia and breech presentation as indications with a corresponding shift away from all other indications (Phillips et al., 1982, p.1083). However, this shift was complete by the late 1980s. A recent study examining the indications for primary caesarean section found no decline in the top three indications for caesarean section: dystocia, breech presentation and foetal distress. Similarly although the rates of vaginal birth after caesarean (VBAC) are increasing, they do not yet outweigh the effect of repeat caesareans on the rising caesarean rate (Myers and Gleicher, 1990, p.200).

## NON-MEDICAL VARIABLES AFFECTING CAESAREAN SECTION RATES

### Consultants: Preference and Prestige

The differential rates of caesarean section between countries, regions, hospital and individual consultants has been blamed on the failure to establish basic principles regarding technological intervention in childbirth. Some commentators have suggested that this failure has led to the multifarious practices in obstetrics and to women's encounter with maternity services being such a "pot luck affair" (Hughes and Parker, 1986, p.62).

It has also been suggested that practising surgery is a way by which obstetricians are able to acquire a certain amount of kudos.

*"A peculiar distinction of obstetrics is its dual identity as a surgical speciality"* (Guillemin, 1981, p.16).

For obstetricians surgery remains a major avenue for professional expansion and reward. Further, there may also be pressure within the profession to maximise use of hospital resources lest other specialities take-over in terms of claims to the operating theatre,

laboratory testing facilities, bed spaces, allocations of finance, other resources and, not least of all, prestige (Guillemin, 1981, p.16).

#### Declining Birth Rate

The declining birth rate in the industrial world since the 1960s has led to more emphasis on the outcome of pregnancy. It has been argued that interventionist techniques, including caesarean section, have been utilised by medical practitioners in order to ensure the best possible outcome (NIH, 1981, p.5).

Given the declining birth rate and the general faith in the medical profession, parental expectations have increased. Consultants now give this as a reason for performing more caesareans (Francome et al., 1993, p.129). Caesareans have therefore become an acceptable approach in the attempt to improve foetal outcomes,.

#### Technological Management of Labour

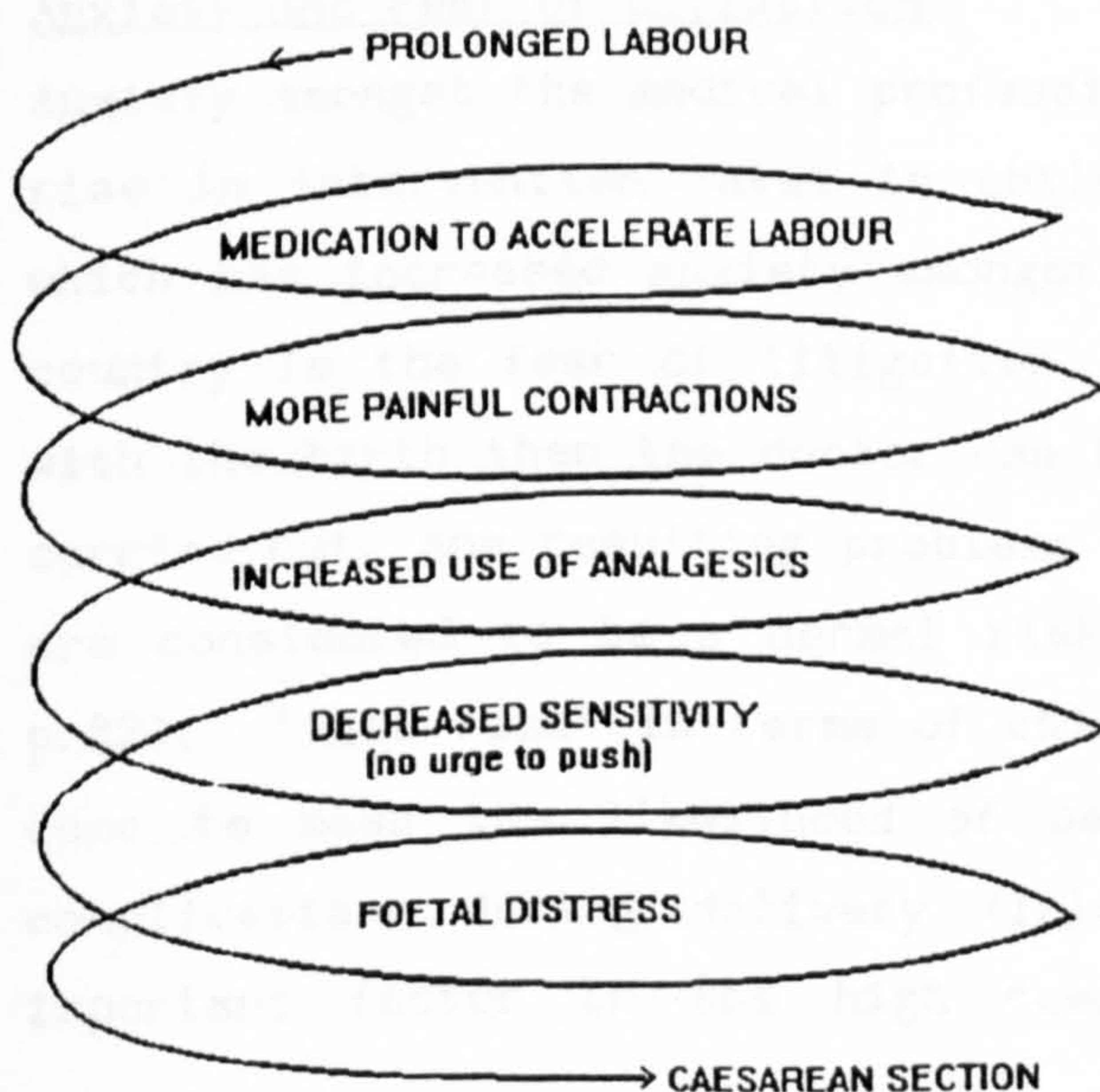
Evidence suggests that as the level of available perinatal technology increases, the use of technological intervention in childbirth also increases. Access to hospital resources has played a key role in rises in rates of caesarean section. Without the technical back-up and medical expertise that a well-equipped hospital offers, it is impossible to do major surgery such as the caesarean at a tolerable level of safety (Guillemin, 1981, p.15). What this means is that low risk women may receive excess and unnecessary interventions (Albers and Savitz, 1991, p.327) simply because they give birth in hospital. The fact that medical intervention is associated with availability of technological equipment means that women are more at risk of intervention if they give birth in hospital (Baruffi et al., 1990, p.274). Fullerton and Severino's 1992 study found that women in hospital were more likely to receive an interventive style of labour and birth management, leading them to conclude that hospital care did

*, Consultants continue to cite improved foetal outcomes as a reason for performing more caesareans despite evidence to show that there is no causal relationship between caesarean section rates above 6% and better perinatal and neonatal outcomes.*

not offer any advantage for women at lowest risk (Fullerton and Severino, 1992, p.331). This point is further demonstrated by the fact that in the United States, Birth Center (nonhospital) facilities have relatively fewer caesarean sections (Rooks et al., 1989, p.1807). A year-long study in 1981 demonstrated the startling effects of the introduction of a perinatology service to one hospital in the United States. The caesarean section rate increased from 14.3% to 18.5%. Furthermore, the implementation of careful monitoring and review procedures produced a reversal of the caesarean rate to its former level (Gleicher et al., 1985, in Lomas and Enkin, 1989, p.1193). The evidence therefore suggests that the unregulated introduction and use of technology can unduly increase intervention rates (Lomas and Enkin, 1989, p.1193).

The rate of intervention in childbirth is accelerated by an emphasis on time scales combined with a rigid adherence of the three stages of labour. It has been suggested that one intervention leads to another (Savage, 1986, p.63) and there is evidence to support this view. Ann Cartwright found that women who were induced more often had assisted deliveries (Cartwright, 1979, p.160). Epidural anaesthesia has also been associated with increased incidence of caesarean birth (Eakes, 1990, p.329; Thorp et al., 1990, p.157). Thus treatments early in labour often culminate in the ultimate intervention: caesarean section (Savage, 1986, p.63). (See Figure 2).

**Figure 2: Technological Management of Labour Spiral**



What this spiral of events means is that medical students, doctors and midwives in training do not see as many normal labours as they need to in order to understand the individual pattern and differences between women instead of relying on estimates of an average range of women in labour (Savage, 1986, p.63). This point is taken a step further by midwife Sally Inch who suggests that the emphasis on intervention in childbirth, and thus the control of delivery by obstetricians, will lead to a deskilling of midwives and doctors leaving them unable to deal with anything other than a singleton, vertex delivery, as all else will be delivered abdominally (Inch, 1986, p.67). This view is supported by the fact that a 1984 study found that the incidence of caesarean birth for second twins (following vaginal delivery of the first) rose from 0.33% between 1973 and 1982 to 7% by the mid 1980s. A finding that the researchers put down to declining obstetric skills and experience (Olofsson and Rydhström, 1985, p.479). Further, the use of foetal monitoring, poorly understood when it was first introduced, has led to a devaluation of the skills and 'art' of midwifery (Savage, 1986, p.63). On a similar theme Kitzenger (1980) suggests that in cases where the baby is lying in a difficult position obstetricians in the past would have attempted to correct the position by external version (that is, manipulation) through the mother's abdominal wall, the tendency now is to deliver the baby by caesarean section rather than attempting to turn the baby. The result of this is that obstetricians have been deskilled and no longer know how to perform external version (Kitzenger, 1980, p.262).

#### Anxiety and Fear of Litigation

Anxiety amongst the medical professional is an underlying factor in the rise in intervention rates in childbirth generally. A recent factor which has increased anxiety amongst health care professionals in this country is the fear of litigation. If there are problems associated with the birth then the doctor can be sued. Whereas if a caesarean is carried out, any resulting problems (including the death of the mother) are considered to be a normal risk of the operation (Francome, 1990, p.82). 'High risk' in terms of childbirth, it has been suggested, has come to mean the likelihood of being sued rather than encountering complications during delivery (Inlander, 1990, p.196). This is an important factor in the high caesarean rate in the United States

(Francome, 1990, p.82) where not only can private patients sue for damage caused to infants during birth but also the concept of 'wrongful life' makes it possible for the damaged survivor of a problematic birth to gain recompense for a costly existence (Guillemin, 1981, p.18). Public health care patients in the United States must sue the hospital and it is the hospital that has to pay if a ruling is made in favour of the patient. It is therefore argued that defensive medicine is responsible for the high caesarean section rate in private practice. Fear of malpractice suits were the most frequent reason for the increase in the caesarean section rate given by physicians in surveys in both the United States (Marieskind, 1979, in Lomas and Enkin, 1989, p.1190) and in the United Kingdom (Boyd and Francome, 1986, p.18). Recent evidence suggests that this trend is continuing to have an effect on caesarean rates in this country. Almost half (46.8%) of doctors surveyed said that the caesarean rates were rising in Britain because of fear of litigation (Francome et al., 1993 p.130).

According to Capsticks, a law firm specialising in medical litigation, every year since 1983, about one in 2,500 births has been followed by legal action. But recently claims have nearly doubled, especially since changes in the procedures for claiming legal aid were instituted in 1990 (Macnair, 1992, p.18). Thus fear of litigation has pushed up the caesarean section rate. It has been suggested that doctors in general, and obstetricians in particular, are responsible for their own downfall. By inculcating amongst the general public the image of super-heroes who can rescue women from their sufferings and come up with a perfect baby every time, it has become virtually impossible for the average person to come to terms with the fact that doctors can be as "*fallible ... as people in any other profession*" (Ranjan, 1993, p.10). What this means is that the public have come to expect remarkable achievements and perfect results every time. It is therefore assumed that the obstetrician is negligent if something goes wrong.

Savage states that the stress of working in an environment where errors of judgement made in good faith are treated as 'crimes' and a climate where perfection is assumed to be a realistic possibility despite human error, poor management systems and a declining service over which

doctors and midwives have no real control, increases anxiety levels. This problem is exacerbated by the fact that women are likely to see a range of different professionals who may offer her differing opinions or explain things in a way that the woman finds difficult to understand because they do not know her. Savage suggests however that when the woman knows the professionals who are caring for her, and, because the relationship is based on mutual trust, if something does go wrong the woman does not usually blame her midwife or doctor (Savage, 1986, p.63). This point is reiterated by Ranjan who suggests that the majority of litigation cases against doctors reflect poor communication and rapport between patient and clinician either before, during or after the event (Ranjan, 1993, p.12).

The tide of rising caesarean rates due to fear of litigation could be reversed by the introduction of no fault compensation for birth injuries, thereby acknowledging that parents of children damaged at birth need support regardless of allocation of blame. This system has worked well in New Zealand since 1974 whereby doctors receive immunity from court action for negligence if a problem occurs in the course of treating a patient. Yet if the standard of medical treatment falls below what is acceptable, the doctor can still be sued (Ranjan, 1993, p.12). What this means is that individuals can receive compensation for problems occurring during medical treatment when the decisions for the particular treatment were taken in good faith. Doctors therefore do not need to practice defensive medicine and patients receive compensation commensurate with the degree of injury suffered.

One of the most disturbing factors associated with the practice of caesareans based on fear of litigation is that the women involved are not being given the correct information in terms of the reasons necessitating the operation. An obstetrician is not likely to inform a woman that s/he is about to perform a caesarean in order to cover her/himself in the event of something going wrong with the birth. Rather the obstetrician will use one of the all-embracing and poorly defined medical terms such as dystocia or foetal distress.

#### Age of Mother as a 'High Risk' Factor

Maternal age has always been a consideration in decisions on whether or

not to perform a caesarean. The older the mother is, the more likely she is to be delivered by caesarean. A recent study in Italy demonstrated how the caesarean section rate increased with maternal age from 16.4% among women younger than 20 years to 43.8% among women older than 39 (Bertollini et al., 1992, p.258).

But what appears to be happening is that more and more women are being included in the category of 'high risk' because of their age. For example, the age at which women are considered to be high risk has gone from 40 to 35 to 30 and in some hospitals in this country women are likely to be considered high risk at 27 (Kitzenger, 1980, p.262).

This rising caesarean rate amongst younger mothers has given additional momentum to the rising caesarean rate in general, not only because more younger women are being operated on, but also because a significant proportion of subsequent deliveries will be by caesarean (Taffel et al., 1985, p.190).

#### Repeat Caesareans and Vaginal Birth After Caesarean (VBAC)

As primary caesarean rates rise, the long held tenet 'once a section always a section' leads to an increase in repeat caesareans (NIH, 1981, p.5). This is evident primarily in the United States where the figures rose from 25.1% in 1970 to 29.9% in 1980 to 34.8% in 1983. By 1985 this medical tradition had held for over 95% of women for over a decade (Taffel et al., 1985, p.190). Another estimation in the United States put the figure at 98.9% of all pregnant women with previous caesareans being delivered operatively in 1979 (Guillemin, 1981, p.16). This, despite the radical change in procedure from vertical to low transverse incisions dating back to the 1930s, a movement which considerably reduced the possibility of scar rupture during labour which was the rationale behind the practice of repeat caesareans in the first place.

*"Rupture of lower segment is too uncommon to justify repetition of section for that reason alone" (McGarry, 1969, p.137).*

During the 1960s McGarry and his colleagues implemented a policy of

, See discussion: 'Once a Caesarean, Always a Caesarean?', p.59.

attempting VBAC "whenever it appeared safe". This resulted in a successful vaginal delivery rate of 72.5% of women with previous caesareans (McGarry, 1969, p.138). They concluded that elective repeat section after single previous lower segment caesareans may be required in less than 12% of cases (McGarry, 1969, p.143).

In 1985 the WHO stated:

*"There is no evidence that caesarean section is required after a previous transverse low segment caesarean section birth. Vaginal deliveries after a caesarean should normally be encouraged whenever emergency surgical intervention is available"* (WHO, 1985, p.437).

The evidence supports this view. In the year 1982-3 the success rate of VBAC at one Los Angeles centre was 82% (Paul et al., 1985, p.299). A study of 2176 patients with one previous caesarean found that 90.8% of women successfully delivered vaginally (Molloy et al., 1987, p.1645). In Sweden the VBAC success rate over a ten year period involving 2036 women with previous caesareans was 92.2% (Nielson et al., 1989, p.569). A recent study in one health region in this country found that 71% of women with previous caesareans achieved vaginal delivery (Paterson and Saunders, 1991, p.819). It appears that over 70% of women who have had one previous caesarean section will successfully deliver vaginally if allowed a trial of labour in a subsequent pregnancy and up to 85% will be successful if the previous caesarean was for breech presentation (Paterson and Saunders, 1991, and Rosen and Dickinson, 1990, in Thorpe-Beeston et al., 1992, p.747). A success rate of up to 90% was recorded in a recent survey in Great Britain (Savage and Francome, 1993, p.494).

As VBAC is increasingly being shown to be a viable and preferable alternative to repeat caesareans, there is also growing evidence to support trial of labour in patients with two or more prior caesareans as a safe and successful alternative to elective repeat caesarean sections (Hansell et al., 1990, p.146-7; Phelan, 1989, in Porreco, 1990, p.150).

However, the incidence of VBAC has only made small inroads against



repeat caesarean section in the United States despite 1981 recommendations of the National Institutes of Health (NIH) and 1982 'Guidelines for Vaginal Delivery after a Caesarean' issued by the College of Obstetricians and Gynaecologists stating that VBAC is safe for the majority of women with previous caesarean section (Taffel et al., 1985, p.190; Shepperd McClain, 1990, p.203). Thus there appears to be some reluctance amongst obstetricians to adopt a policy of VBAC as demonstrated in the overall rates. In 1980 the rate of VBAC in the United States amongst those women for whom it was feasible was 3.4% (Taffel et al., 1985, p.190). The rate was 6.6% by 1985 (Placek et al., 1987, p.241), 12.6% in 1988 and rose to 20.4% of women with previous caesareans in 1990 (Taffel et al., 1992, p.22).

It seems that it is reluctance on the part of many obstetricians and strict adherence to outdated medical traditions that is affecting decisions rather than the mother's current medical situation. Even when convinced of the intellectual rationale that VBAC is safe, it appears that situational pressures such as anxiety over legal liability, the inconvenience of a lengthy labour, peer pressure and general resistance to change may predispose obstetricians to retain familiar patterns of behaviour (Domnick Pierre et al., 1991, p.1287).

However, some shift in obstetricians' attitude to VBAC is evident. The fact that the VBAC rate in the United States rose to over 20% in 1990 may be an indication that VBAC is being more widely accepted and practiced. One health region in this country recently demonstrated that the practice of repeat caesareans may be in decline with 63% of women with previous caesareans being allowed a trial of labour (Paterson and Saunders, 1991, p.819). A recent survey found that less than one in fifty British consultants follow a policy of repeat caesareans. The number in Scotland is one in twenty-four, which may account for the fact that the caesarean section rate is higher in Scotland than it is in England and Wales (Francome et al., 1993, p.124).

It has been demonstrated that VBAC is safe for the majority of women. VBAC mothers tend to have the same history and frequency of complications as mothers with previous vaginal deliveries (Placek and

Taffel, 1988, p.514). Further, it could be suggested that repeat caesareans may actually be detrimental to women's health. Basing its comments on statistics gathered on caesareans being carried out in the United States, the NIH report (1981) stated that:

*"a repeat cesarean carries two times the risk for maternal mortality of vaginal delivery"* (NIH, 1981, p.11).

In a Swedish study significantly greater risks of major complications were found in repeat caesareans compared with primary caesareans (Nielsen and Hökegård, 1984, p.107).

The risk factor associated with repeat caesarean does not rest with the mother alone. Data from the 1970s in New York City shows that at birth weights below 2501 grams, neonatal mortality is consistently higher for those born by caesarean compared with vaginal births. Therefore the evidence suggests that there is no advantage for mother or child of performing repeat caesareans (NIH, 1981, p.11).

The health risks to mothers and their babies from repeat caesareans, coupled with the fact that VBACs are cheaper than repeat caesareans in terms of hospital costs, means that the key to the use of VBAC in the future lies with public concern combined with an increased awareness by physicians, insurers and malpractice lawyers of the safety of VBAC (Placek and Taffel, 1988, p.514).

There is, however, some evidence to suggest that some women prefer elective caesarean sections to the potential discomfort of a trial of labour, especially after a previous experience with prolonged labour and eventual caesarean. Fear of failed trial of labour and the convenience of a scheduled delivery, coupled with negative attitudes of obstetricians towards a trial of labour, all contribute to women's choice of elective caesarean section (Shepperd McClain, 1990, p.205). In hospitals where VBAC is encouraged, two-thirds of eligible women choose trial of labour, and of these, the majority succeed in achieving vaginal birth (Shepperd McClain, 1990, p.209). What this points to is that women need to be made aware of the feasibility of VBAC if they are to make informed choices.

### Changes in Diagnostic Practices and Procedures

Increases in the number of caesarean sections being performed may be in part due to the increased diagnosis of foetal distress in labour (NIH, 1981, p.15; Inch, 1985, p.66). A further reason for the increase in the caesarean rate involves major changes in the obstetrical management of breech presentation (NIH, 1981, p.5; Taffel et al., 1985, p.190). Both are now cited as major indicators for caesarean section in obstetric literature. A policy of wholesale caesarean section for breech presentation has been criticised because of its likely effects on maternal morbidity and mortality as well as the training of obstetric staff.

### Electronic Foetal Monitoring (EFM)

Evidence linking EFM with higher caesarean rates is unequivocal (McCusker et al., 1988, p.1170). When all factors except the use of EFM are controlled, the caesarean section rate almost doubles as a result of using EFM (Banta and Thacker, 1979, in Inch, 1985, p.91). The use of EFM has been linked with the increasing frequency of diagnosis of foetal distress (NIH, 1981, p.15). In a recent study of British consultants' views on the rising caesarean rate, one in eighteen mentioned the misreading of EFM as a reason for the increase in rates. Some of the respondents were positive about the use of EFM:

*"monitoring enables us to identify babies at risk".*

Others were less confident about the benefits of EFM and felt that the rising caesarean rates were due to:

*"misinterpretation of foetal monitoring results" or "too much monitoring and too little facts" (Francome et al., 1993, p.131).*

It is therefore reasonable to assume that the rising caesarean rate is to some extent the result of the increased use of EFM.

, See section on 'Breech Presentation' p.107, and section on 'Technological Management of Labour' p.110.

## Finance

Financial factors also lead to increases in the caesarean section rate and may act against the best care being given to expectant women. The differing caesarean section rates for women of differing socio-economic status can be interpreted as relating to differing financial incentives for physicians. Where payment is involved in health care it is more lucrative for the doctor to perform a caesarean as it can be done in a shorter time than a vaginal delivery and s/he will be paid more (Francome, 1990, p.82). Fees for caesarean birth are often higher than those for vaginal delivery and there is evidence to suggest that financial considerations do play a part in physicians' decisions on whether or not to perform a caesarean (Janowitz et al., 1984, p.515). Charges for caesarean operations in the United States can be more than double those for uncomplicated vaginal deliveries (Guillemin, 1981, p.16). As demonstrated in the previous section (p.97) wealthier insured groups of the population suffer higher rates of caesarean section than their lower socio-economic counterparts. This suggests that profit has become a valid indicator for caesarean section rather than medical need or concern for the women involved.

However, it has been suggested that the direct effect of financial considerations on caesarean section rates should not be overestimated. In some cases the difference between fees for caesareans and for vaginal deliveries are not that great and may actually have been removed altogether. Also the proportion of the fees which translates into income for the physician is likely to be negligible and therefore will not have a large effect on the decision to perform the operation. However, the indirect relationship between the financial income from operative birth as opposed to vaginal delivery is more likely to emerge from the physicians' ability to control the time and duration of the delivery with caesarean section which is not afforded by spontaneous labour and delivery (Lomas and Enkin, 1989, p.1191).

But, how does this relate to an increasing caesarean rate in National Health Service (NHS) hospitals? In an atmosphere of financial constraints on health services, with hospitals having to ration resources and manage tight budgets it is not unreasonable to expect that highly technological, expensive equipment along with highly

trained personnel need to be seen to be efficient, effective and, more importantly, over-used in order to justify their existence. There is some evidence to suggest that Special Care Baby Units are over-subscribed for this reason and that other high-technology treatments including the medical management of labour are exploited for the same reason (Phillips and Rakusen, 1978, p.439).

### Medical Convenience

There is evidence to suggest that medical interventions in childbirth, including caesarean section, are carried out for reasons of convenience for the medical practitioners rather than for the medical need of the woman concerned. For example, Eisner and Wright (1986) suggest that General Practitioners (GPs) are reluctant to allow home births because of the extra work involved. They state that GPs have to be available for at least four weeks (that is, two weeks before and two weeks after the expected date) and be prepared to leave whatever they are doing the moment they are called to the labour. Naturally this has a knock-on effect on the time and energy they can spend on their other patients, not to mention the GP's home/private life (Eisner and Wright, 1986, p.135). Further evidence points to the fact that caesareans are being utilised by hospital practitioners for the same reason. More sections are performed during the day than at night and during the week rather than at the weekend (Macfarlane, 1984, p.695; Bertollini et al., 1992, p.259). Cartwright's 1979 study showed that elective caesareans were more likely to occur on Mondays and relatively few were performed at weekends (Cartwright, 1979, p.28). One respondent in an American study of women who had had caesareans said:

*"Sometime during the day the nurses had told us it was my doctor's birthday and that he was having a party that night. As they were taking me to the delivery room they made my husband wait in the hall. While he was waiting there he heard my doctor on the 'phone say, 'You go ahead without me to the party; I'll be there in 45 minutes'"*  
(from Perez, 1989, p.132).

The argument that caesareans are being performed for practitioner convenience rather than medical necessity is furthered by the fact that the incidence of respiratory distress syndrome is less amongst infants whose mothers are allowed to go into labour prior to the caesarean

being performed than those whose mothers are operated on before the onset of labour (Cohen and Carson, 1985, p.818). Yet still it is the norm to perform elective caesareans before the onset of spontaneous labour. The implication here is that it is more convenient for the physician, hospital and patient for a pre-planned elective operation rather than waiting for labour to begin, even though the evidence suggests that this is better for the infant.

Mavis Kirkham, from her experience of working as a midwife, implies that pain relief is given to women during labour to relieve the discomfort of the medical staff present (Kirkham, 1986, p.40). This raises the question of whether other interventions, and even surgery, are performed for the same reason. In a letter to The Lancet, Smith, whilst defending the caesarean section rate states:

*"No woman these days has a labour of over fifteen hours without her ... becoming agitated, let alone the midwife and junior medical staff"* (Smith, 1990, p.510).

The implication here is that caesareans are performed for the ease/comfort of the medical practitioners rather than being dependent on the medical needs of women having babies.

It could be further suggested that caesareans are contemplated for reasons of convenience as doctors and hospital staff will know exactly when the baby is to be born and roughly how long it will take rather than waiting for the unpredictable timing and duration of spontaneous birth.

### Staffing

The issue of 'staffing' has been raised by consultants as a problem and a reason for the increase in the caesarean section rate. Either because less experienced junior doctors are staffing labour wards or because the consultants' workloads have increased (Francome et al., 1993, p.131). This may well be the case.

*"Unfortunately, much of the labour ward obstetrics is in the hands of registrars and other relatively junior staff at present. Consultants may be contacted about a doubtful*

*case by telephone, but often the easier answer is tell the registrar to carry on with a section" (Chamberlain, 1993, p.403).*

Similarly, evidence suggests that a higher ratio of consultants to women is associated with a higher caesarean section rate (Health Committee, 1992, pp.74-5). This will inevitably have an effect on the caesarean section rate as services are scrutinised for efficiency and consultants' workloads are increased in the name of rationalisation.

#### Gender of the Physician

There is no evidence directly relating the gender of the obstetrician to caesarean section rates but a 1985 study found that male gynaecologists were twice as likely to perform hysterectomies as their female counterparts (Domenighetti et al., 1985, p.1482). It is possible to speculate that the same trend may be true for caesareans.

Female physicians may be more reluctant to operate on other women either to remove their wombs or to extract an infant, as they may have more empathy with the importance that the womb or, for that matter, vaginal delivery has for women. However, a recent survey in this country found no correlation between the sex of the obstetrician and individual caesarean section rates (Savage and Francome, 1993, p.494).

#### THE COST OF CAESAREANS

The continuing rise in caesareans raises important implications for health care costs and medical providers. The medical cost of delivery by caesarean is higher than that of vaginal delivery (NIH, 1981, p.21). The average length of hospital stay for caesarean patients is almost double that of vaginal deliveries (Taffel et al., 1985, p.190). Whereas the length of hospital stay for VBAC mothers is comparable to other vaginal deliveries (Placek and Taffel, 1988, p.514). In the United States it was estimated that if the 500,000 repeat caesareans had been VBAC, surgical fees and costs for 1.2 million days of hospital stay would have been averted between 1980 and 1985 (Placek and Taffel, 1988, p.514).

In Britain the rising cost of maternity services is partly the result of increased intervention in childbirth including caesarean section. Intervention increases the demand for expensive paediatric and anaesthetic facilities. The wider use of elective caesareans increases the demand for biochemical and ultrasound facilities for assessment of gestational age (Chalmers and Richards, 1977, p.48). It has been estimated that a woman delivered by caesarean section is likely to cost the NHS at least £1000 more than if she had a vaginal delivery. Thus if the caesarean rate was reduced by only 1% it would save the Health Service £7,000,000 a year (Savage and Francome, 1993, p.495). Lomas and Enkin state that:

*"An emerging cost-consciousness makes it less and less acceptable to spend resources on interventions that are being used at rates far in excess of what can be considered appropriate, or even 'good medicine'" (Lomas and Enkin, 1989, p.1193).*

In times of scarce resourcing for the health services it is inappropriate to channel so much money into the increasing use of interventionist techniques which are of questionable value.



## Chapter Twelve

### **THE EFFECTS OF CAESAREAN SECTION**

---

#### EFFECTS OF CAESAREAN SECTION ON THE MOTHER

Caesareans affect women differently to vaginal deliveries. The evidence suggests that women who have caesarean births suffer more negative effects, both psychologically and physiologically. The negative effects of caesarean sections are compounded by such things as having emergency operations as opposed to elective ones; the type of anaesthetic used for the operation; whether a partner/birth companion was allowed to be present for the birth, and how prepared the woman was for the operation in terms of the amount of information available to her about caesarean birth.

#### Emergency Versus Elective Caesareans

Studies have shown that women who have emergency operations have less positive perceptions of the delivery than women who have either vaginal or elective caesarean deliveries (Cranley et al., 1983, p.10; Fawcett et al., 1992, p.442) and that they report significantly more distress regarding the physical sensations associated with the birth (Fawcett et al., 1992, pp.443 & 444). Women who have unplanned caesareans often feel that they have failed because they could not give birth vaginally and have, in some circumstances, even blamed their babies for the long, painful, and unproductive labours that resulted in operative deliveries, postpartum pain, and emotional distress (Affonso and Stichler, 1980, p.468; Marut and Mercer, 1979, p.260). These findings suggest that the unexpected nature of the unplanned caesarean delivery may have more influence on the woman's feelings about her birth experience than the caesarean delivery per se. This is probably because in the emergency situation there is not time for the procedure to be explained to the woman or for the medical practitioners to keep the woman fully informed of all that is happening to her. However, when the caesarean is elective the woman has time to acquire the

knowledge and information she will need to deal appropriately with the operation. She will have time to read about caesarean birth and to discuss any queries with health professionals which should enable her to come to terms with what is about to happen and thereby avoid the feelings of complete disappointment that many caesarean patients feel. In cases of emergency caesarean women do not have the luxury of time. One study found that almost half the women having emergency caesareans had two hours or less to prepare themselves for the operation. The researchers concluded that this was too short a time for the women to grasp the significance of what was happening and therefore deal with the situation appropriately (Affonso and Stichler, 1980, p.468). Similarly other studies have recorded negative responses from unplanned caesareans (Fawcett, 1981, p.372; Marut and Mercer, 1979, p.260).

Emergency caesareans also appear to carry a higher risk of morbidity and mortality to women, although this is to some extent due to the conditions necessitating the emergency operation rather than the surgery per se. In a study of the surgical complications of caesarean section, Nielsen and Hökegård found that the major surgical complications associated with all procedures all occurred in emergency operations. For example, blood transfusions were used five times more often in emergency operations than elective caesareans. Correspondingly all complications associated with elective procedures were minor ones (Nielsen and Hökegård, 1984, pp.4-6). Emergency caesareans are also more risky in terms of death to the mother. All maternal deaths (except one) following caesarean section in Sweden between 1973 and 1979 occurred after an emergency operation (Moldin et al., 1984, p.7).

#### Type of Anaesthetic

The type of anaesthetic used for the operation is also important. Caesarean delivered women who have had regional anaesthesia tend to have a more positive perception of the birth experience than those who have general anaesthesia (Marut and Mercer, 1979, p.260; Cranley et al., 1983, p.10; Fawcett et al., 1992, pp.443 & 444). This is possibly because women who have regional anaesthetic remain conscious throughout the operation and are therefore able to feel as though they are taking

part in the birth process. Participation in the decision-making process is the most important component indicated by women in terms of their satisfaction with medical care (Seguin et al., 1989, p.109). Epidural anaesthetic makes the process easier for mothers particularly in the early postnatal period as they can benefit from early contact with their newborn babies and it leaves them free to respond to their babies needs and feel more confident in their abilities to care for their infants (Trowell, 1986, p.64). The use of regional anaesthesia has also been shown to have a less negative effect on the mother-infant relationship (Gottlieb and Barrett, 1986, p.180, in Fisher et al., 1990, p.96).

Mothers having epidural anaesthesia appear to have a better experience all round. Not only are they better informed and therefore prepared, are awake for the birth of their babies and often have their partners present, they suffer less after-effects. They usually get out of bed earlier than women who have had general anaesthesia, they feed their babies sooner, report less depression and tiredness in the postpartum period, as well as having a lower incidence of a wide range of complications such as infection (Morgan et al., 1984, p.328).

There appears to be a significant difference in post-operative morbidity according to the type of anaesthetic used for the caesarean operation (Morgan et al., 1984, p.329). In a review of relevant studies on the negative effects of caesarean section Oakley and Richards (1990) found that mothers who had been given general anaesthetic for their operations experienced more marked effects than women having epidurals (Oakley and Richards, 1990, p.195). A French survey found that mothers having general anaesthetic experienced longer-lasting consequences such as tiredness and experienced more difficulties taking care of their babies (Lelong and Kaminski, 1987, p.197). Not surprisingly, more women feel tired and depressed following general anaesthesia for caesareans than those who have epidurals (Morgan et al., 1984, p.329).

Furthermore, general anaesthesia carries with it the risk of death associated with all major surgical procedures (Chalmers and Richards, 1977, p.46). The Department of Health (DH) reports on maternal deaths

in the United Kingdom 1976-78 and 1985-7 highlight the risks. Between 1976 and 1978 57% of maternal deaths in England and Wales were associated with the use of general anaesthesia for emergency caesarean sections (DHSS, 1982, table 8.3). Of the eight women whose deaths were directly related to anaesthesia administered during delivery between 1985 and 1987, seven women were given the anaesthesia for caesarean operations (DH, 1991, p.74):

On the whole, it appears that there is an association between type of anaesthesia used for the caesarean operation and the woman's attitude towards the delivery. 93% of Sargent and Stark's sample said that being in control was important to them. The association between local anaesthesia and maintaining control was evident (Sargent and Stark, 1989, p.46). General anaesthesia tends to be associated with more negative perceptions (Sargent and Stark, 1987, p.1272). This is probably because women who have general anaesthesia for their caesarean operations are not able to participate in the birth of their children and often feel deprived of the experience and the memories that are associated with it. It appears that 'being awake' for the birth represents 'participation' in the delivery for many women (Sargent and Stark, 1989, p.46). Opportunity to participate in the decision-making process and, more importantly, to participate in the delivery of the baby, are critical elements in perceptions of caesarean childbirth (Sargent and Stark, 1987, p.1273).

Thus the evidence shows that the combination of emergency operations and general anaesthesia offer the greatest risk to women in terms of post-operative morbidity, and more importantly, maternal mortality.

#### 'Missing Pieces'

A major effect of general anaesthesia is that women are unable to recall the birth experience and therefore do not feel as though they have participated in it. It has been suggested that this lack of recollection is responsible for general negative feeling towards the birth process (Affonso, 1977, in Sargent and Stark, 1987, p.1272). In Sargent and Stark's study a significant proportion of their sample (41%) reported that some significant aspect of the birth experience was 'missing'. One of their respondents said:

*"I feel I missed the whole experience."*

Another stated:

*"when I awoke it was over."*

Such experiences lead to feelings of doubt in the women concerned. One said:

*"How do I know she's mine? I didn't see her come out"* (from Sargent and Stark, 1987, p.1272).

It has also been suggested that people are more able to cope with stressful experiences if they have been witness to events as they unfold (Huntingford, 1985, p.132). If this is the case, then the experience of women undergoing caesarean section could be improved if they are awake for the operation. Given the negative after-effects associated with general anaesthesia such as maternal feelings of dissatisfaction with the delivery, increased incidence of morbidity and, the risk of mortality, there must surely be an argument for the use of regional anaesthesia in all possible cases.

#### Having a Partner/Friend Present for the Birth

The benefits of having a friend or partner present for the birth are obvious. Not only are they able to offer direct support to the mother but they are also able to act a mediator between the woman and the medical staff and assist in negotiations about what may happen. Particularly at a time when the woman is feeling anxious and vulnerable, it is essential that she has someone who knows her well with her to act as advocate. Furthermore, the woman's disappointment at missing out on the birth of her child, as when general anaesthetic is used, may be reduced if her friend or partner is able to give her an account of the birth which otherwise she may not have. A partner's description of the birth with details that medical attendants may consider trivial can do a lot to make up for what the mother has missed (Huntingford, 1985, p.132). Studies looking at women's experiences of caesarean section have shown that women express much greater

satisfaction with the operation when they have been able to have their partner present for the birth (Marut and Mercer, 1979, p.260; Fawcett, 1981, p.372; Cranley et al., 1983, p.10; Cain et al., 1984, p.10; May and Sollidd, 1984, p.87). Furthermore, the presence of the partner in the operating room tends to improve the post-operative behavioural response of both parents (NIH, 1981, p.19).

#### Hospital/Doctor Policy

Whether or not the partner/birth companion is allowed to be present for a caesarean is very much reliant on the personal preference of the doctor attending the birth. A recent survey of obstetricians found that almost half (47.8%) of consultants said that they would allow a birth companion to be present for a caesarean. A similar number said that they would allow it 'sometimes'. Only 3.7% said that partners/birth companions were not invited into the operating theatre for abdominal deliveries. The crucial factor in whether or not consultants allow a partner/birth companion to be present, on the whole, was the use of general anaesthesia (Francome et al., 1993, p.137).

Thus at a time when great stress is being placed on the desirability of 'sharing' the birth experience, some couples may experience considerable stress and disappointment if the partner is excluded (Richards, 1983, p.372).

#### Are partners a nuisance in the operating theatre?

Some doctors state that it is inconvenient for partners to be present during a caesarean as the serious nature of the operation means that the presence of an extra person in the theatre may present some kind of a risk. However, it appears that the partner's presence in the operating theatre does not constitute a major problem or risk (NIH, 1981, p.430) and that fears about the adverse effect of partners being present during surgery in terms of, for example, risks of infection, the partner not being able to cope with what is happening and becoming an extra burden on the medical staff, lack of space and an increase in the number of malpractice suits have never been proved (Hillan, 1991, p.32). Huntingford states that in his experience as a consultant obstetrician, there is no anticipated complication or even tragedy at

birth which justifies exclusion of the partner:

*"In the end it is usually easier to accept and come to terms with what happens if you have been a witness to events as they unfold, rather than if bad news is conveyed to you by a stranger afterwards" (Huntingford, 1985, p. 132).*

What this points to, once again, is that it is better for the woman and her partner/birth companion if regional anaesthesia is used instead of general. The use of general anaesthetic tends to mean the exclusion of all but the patient and medical staff from the birth in some hospitals.

#### Psychological Effects

The evidence from existing studies suggests that women may be less satisfied following caesarean birth than those who deliver vaginally, and that this dissatisfaction may contribute to feelings of depression, disappointment, guilt, lower self-esteem and could possibly have long term effects on the mother-child relationship. Women who have delivered by caesarean section have been observed to experience intense post-operative anxiety, extreme disappointment and a sense of inadequacy and failure (Cohen, 1977, p. 114; Affonso and Stichler, 1980, p. 468).

#### Disappointment, Guilt and Depression

Depression is a commonly accepted consequence of major surgery (Oakley, 1980, p. 221) yet the assumption is not made about caesarean section. However, it has been suggested that there is a clear relationship between technologically managed delivery generally and postnatal depression (Oakley, 1980, p. 148), but more specifically, there is a relationship between caesarean section and depression postnatally (MacArthur et al., 1991, p. 171). Anxiety and depression in relation to motherhood is predominantly seen as reflecting the feminine psyche and not as rational concomitants of surgical experiences (Oakley, 1980, pp. 220-1). Many of the psychological consequences of surgery in general will also apply to caesarean section including, for example, emotional relief or elation at having survived the operation, worry

about the mutilating effects of the surgery on the body and a protracted period of physical and psychological discomfort.

It is often the case that any sign of negative emotion from the caesarean mother is put down to the 'baby blues' or 'feeling a bit weepy' after the birth and therefore not usually associated with the surgery that the woman has undergone. Yet the caesarean patient is expected to cope, not only with these feelings with little or no support and understanding, but also with the demands of a newborn baby, thereby engaging in activities which would not normally be expected of patients who have had major abdominal surgery. This will inevitably exacerbate any feelings of depression as the woman will not be able to cope with her baby in the way that she had expected to. Unless women have a previous history of difficult labour, previous caesareans or are alerted during antenatal check-ups that a caesarean may be necessary, they will not usually seriously consider that they could need a section. They are therefore more disappointed when the outcome does not meet their expectations and are likely to suffer more in terms of depression because of this. Further, it has been suggested that caesarean section increases the incidence of more serious depression and anxiety postnatally in some mothers (Trowell, 1986, p.64). Caesarean mothers have also been shown to report less satisfaction with the birth experience than those who delivered vaginally (Marut and Mercer, 1979, p.260; Cranley et al., 1983, p.10; Kearney et al., 1990, p.97).

In addition to these feelings the obstetric patient may experience an additional sense of loss and even failure at not being able to deliver normally. There is evidence to suggest that caesarean mothers feel disappointment or anger at being 'cheated' of a vaginal delivery which leads to feelings of depression, guilt and lack of self-esteem (Cox and Smith, 1982, p.309). Furthermore, women are subjected to the sometimes damaging or depressing effect of not being able to control what happens during the delivery (Richards, 1983, p.370). One woman's account of her reactions when she found out that she would need a caesarean highlights this point:

*"I've known for two days that I'd have to have a Caesarean section. My baby is a breech presentation and my pelvis*



*too small for a vaginal delivery. I feel like a freak - not a 'real' woman - I can't even be delivered 'normally'. I shall never know the experience of childbirth. I shall never be able to say, 'Oh it wasn't that bad'. I'll never know what it feels like to push the baby I've carried inside me into the world" (Dean, 1986, p.70).*

Women have reported feelings of disappointment and guilt about not being able to 'mother' the newborn immediately after delivery. In Fawcett and Burritt's study one woman stated that she felt guilty that she was not interested in the baby for a day, and that she was concerned that lack of early bonding would have lasting negative effects on her relationship with her infant (Fawcett and Burritt, 1985, p.229).

#### Long Term Psychological Effects

A woman's feelings about her childbearing experience may influence her feelings about, and performance of, her perceived maternal role. New mothers frequently regard the birth experience as a nodal event that can colour the rest of their lives (Marut and Mercer, 1979, p.260). Negative feelings about the birth may therefore have a negative impact on family life. What is clear is that mothers delivered by caesarean section need time to recover physically and need extra support emotionally. Many women and their families handle this satisfactorily. But for many it is a struggle and for a number of them the operation leaves them pre-occupied and unresponsive to their baby so that their perception of the child as difficult can persist (Trowell, 1986, p.64).

Evidence from studies investigating the long-term effects of caesarean birth, whilst limited in scope, raise a number of important issues. Caesarean mothers tend to handle their infants significantly less in the immediate postpartum period (Tulman, 1986, p.296) and experience more ambivalence towards their babies (Affonso and Stichler, 1978, p.468). In a study comparing 50 low risk primigravidae delivered by caesarean section with a matched control group of 50 primigravidae delivered vaginally, Edith Hillan found that six months after the delivery, more of the emergency caesarean women were adamant that they would never have another baby and the majority stated that their decision was a direct result of their labour and delivery experiences.

In the control group the decision to have no more children was found to be unrelated to labour and birth experiences (Hillan, 1992, p. 163).

#### Inconclusive Evidence on Effects

Evidence on the negative effects of caesarean section is not conclusive and some studies have suggested that mothers having caesarean birth are not significantly different on levels of depression than those delivering vaginally (Culp and Osofsky, 1989, p.57; Sargent and Stark, 1987, p.1271) and that many women perceive the operation to be a positive experience (Sargent and Stark, 1987, p.1270),. Further it has been suggested that the most important dimension of birth to the women involved is a healthy baby and not the delivery process (Sargent and Stark, 1987, p.1271),.

One study comparing the effects of caesarean delivery with vaginal births found that the mothers and fathers experiencing caesarean births were not significantly different on levels of depression or marital adjustment and there were no significant differences in the mother-infant behaviour during the feedings observed. The authors suggested that these results support the theory that mothers respond to their babies' behavioural repertoire and not to the mode of delivery (Culp and Osofsky, 1989, p.57).

What is more, it has been suggested that caesarean parents see their children in a more positive light or react more positively to them during the first year, and that these early parental perceptions and reactions persist (Entwisle and Alexander, 1987, p.681). Explanations for this offered by the authors of this study centre around the caesarean child being perceived as more valuable or 'precious' to its parents. For example, caesarean children are more costly (where direct payment for medical care is involved). Also, caesareans are perceived to be more dangerous and are more debilitating to the mother in the short term. Caesarean parents, having suffered these negative concomitants of caesarean birth, could therefore place a higher value

*, Caution is urged in the interpretation of the results of this research as the sample consisted of only 35 women giving birth at a private hospital in Dallas, U.S.A.*

on their infant as a consequence (Entwisle and Alexander, 1987, pp.681-2). However, the authors do concede that the circumstances surrounding the birth of a child may affect family process over lengthy periods of time (Entwisle and Alexander, 1987, p.682).

Researching into the differences in psychological adjustment and satisfaction between women who delivered vaginally and those delivered by caesarean section, Padawer et al. found that, although there were significant differences in levels of satisfaction, (caesarean mothers reporting less satisfaction with the delivery and childbirth experience than the vaginal-birth mothers) caesarean mothers were not more depressed, anxious or less confident in their mothering abilities than the women who delivered vaginally, and no differences were found between the groups on psychological adjustment. There were no indications of decreased mental health or need for clinical intervention among the women in the caesarean group (Padawer et al., 1988, p.32). However this study controlled for many of the factors associated with caesarean birth that tend to lead to women experiencing detrimental effects from the operation. Factors such as participation in childbirth classes, presence of partner during birth, immediate contact with a healthy infant and absence of general anaesthesia were controlled. It is therefore not surprising that no significant differences were found in the psychological adjustment of these two groups of women as it is precisely the effects of general anaesthesia, lack of information, not having the partner present during the birth and separation from the baby immediately after birth that lead to many of the problems associated with caesarean delivery. It is interesting to note that even when these factors are controlled for, a significant difference is still found between women who have been given a caesarean section and those who have delivered vaginally in terms of their satisfaction with their experience of childbirth. Such a difference could only be based on the mode of delivery.

#### Familiarity Breeds Content?

Some commentators have suggested that the increasing use of caesarean sections and the familiarity of the operation amongst expectant parents may itself contribute to new parents viewing the procedure as an alternative method of childbirth and therefore reduce any negative

effects (Culp and Osofsky, 1989, p.56). It has even been proposed that as caesarean birth is so prevalent, women having the operation may feel 'normal' and therefore not suffer in terms of distress or disappointment and that they may even feel 'special' (Shearer, 1989, p.57). However, there is no evidence available to support these claims.

### Self-Help Groups

The growth in recent years of self-help groups for women who have had caesareans has been seen as indicating a clear psychological and social need for support which women who have undergone surgical delivery may feel, and some commentators have suggested that this represents a recognition amongst women of the effects that can follow from a caesarean section (Richards, 1983, p.371, Oakley and Richards, 1990, p.193). There is no doubting the value of such groups for women who need support and advice. It is also in this forum that women can explore perspectives other than those offered by the professionals and impose their own priorities and emphases on to the subject matter. Trowell's 1986 study gave evidence to support the value of post-caesarean section support groups where mothers can feel free to discuss their own feelings and concerns about themselves (Trowell, 1986, p.64).

However, the growth of such groups may indicate a cause for concern. First of all because it is unfortunate that support groups have become necessary. Perhaps if less caesareans were performed and women were better prepared for those operations that are necessary, there may be less need for support. Secondly, it is often the case that women from the lower socio-economic groups are excluded from support groups which are seen as 'middle class' enterprises. Women are excluded for many reasons including lack of information, access, time and experience. What this means is that many women who need support, help and advice will not get it. Surely it would be better to address women's needs prior to delivery rather than women having to organise themselves in order to provide the necessary support after the event.

## Physiological Effects

*"Caesarean section is still the most important predisposing factor associated with maternal mortality and postpartum morbidity"* (Nielsen and Hökegård, 1984, p.106).

### Morbidity

Caesarean birth is a major surgical procedure, and as such will always be associated with a morbidity rate greater than that of vaginal delivery. Serious maternal morbidity after the operation occurs in 9-15% of caesarean sections (Engelkes and van Roosmalen, 1992, p.789). The major causes of postoperative morbidity being endometriosis, urinary tract infection and wound infection (NIH., 1981. p.268). The major abdominal surgery of caesarean section leaves many women tired with varying degrees of discomfort (Trowell, 1986, p.64) which may ultimately slow down the recovery process. In a study of recovery from childbirth, Tulman and Fawcett found that 6 months postpartum, 25% of women did not feel physically recovered from the experience and caesarean section was found to be one of the major hindering factors to recovery (Tulman and Fawcett, 1991, p.341).

Women's experiences during delivery and the early postpartum can affect their perceptions of the birth. When childbirth is rated as painful and distressing, feelings about the experience are negative (Fawcett et al., 1992, p.444). One proposed solution to this problem is the increased use of analgesia in the early postpartum giving the mother more comfort and enabling her to bond with and care for her baby. Inadequate analgesia, it is suggested, leads to discomfort and insomnia which decreases the mother's ability to cope with all the physiological and psychological changes associated with the early postpartum (Macdonald, 1990, p.202).

Yet there is evidence to suggest that women's post-operative feelings of pain and physical distress can be decreased at the same time as enhancing their self-esteem, perceptions of the birth and feelings towards the baby by giving women appropriate information to enable them to come to terms with abdominal delivery (Wilson, 1981, p.79; Greene et al., 1989, p.484; Fawcett, 1990, p.1423; Kanto et al., 1990, p.39).

What this means is that post-operative morbidity can be decreased by greater preparation pre-operatively. This would reduce the need for increased analgesia post-operatively to enhance women's experience of caesarean section.

#### Long Term Health Effects

A Swedish study in 1991 comparing the long term health effects of women following caesarean section and vaginal deliveries found that whilst caesarean women had higher long term morbidity, as defined by use of hospital services, than those women who had a vaginal delivery, this morbidity was a continuation of previous (that is, prior to the caesarean operation) behaviour patterns for the women concerned, suggesting that poor health could be an indicator for caesarean section rather than a consequence of it (Hemminki, 1991, p.26). However the results did suggest an increase in problems during subsequent pregnancies, labours and deliveries for women who have had caesarean sections and that some of these problems may have been a consequence of the operation itself. More significantly, the study found an increased frequency of ectopic pregnancy following caesarean section (Hemminki, 1991, p.27). As many countries are now facing increasing rates of ectopic pregnancy there is reason to suggest that further investigation is required into the relationship between caesarean section and subsequent ectopic pregnancies. Similarly studies from Scotland and the United States found lower fertility rates amongst women following a caesarean section compared to women who had given birth vaginally (Hall et al., 1989, p.1297), indicating that research into the effects of caesarean section on subsequent reproduction is imperative.

#### Maternal Mortality

Although the risk of death to mother and child from caesarean section may now be relatively small (compared to earlier times in the history of the operation) it is still a cause for concern as many deaths may be avoided. Caesarean section related maternal mortality rates have decreased dramatically, for example in the United States the death rate from caesarean section declined from 0.11% of all caesarean deliveries in 1970 to 0.04% in 1978 (Guillemin, 1981, p.16). Yet death from caesarean birth still comprise the major part of total maternal mortality statistics. Similarly data from the United Kingdom show that

the numbers of deaths from caesareans have declined even though the amount of caesareans being carried out have increased. (See Table 2.1).

Table 2.1 Maternal Deaths Associated With Caesarean Section  
England and Wales 1970-87 and the United Kingdom 1985-87

Period	Total deaths from caesareans England and Wales	Total maternal deaths - UK
1970-72	102 (E&W)	
1973-75	77 (E&W)	408 (UK)
1976-78	80 (E&W)	
1979-81	87 (E&W)	
1982-84	69 (E&W)	203 (UK)
1985-87	64 (E&W)	
-----		
UK 1985-87	76 (UK)	174 (UK)

(Source: Department of Health, 1991, tables 1.3, p.4 and 13.1, p.119).

Caesarean delivery carries about four times the risk of maternal mortality compared to a vaginal delivery and caesareans performed because of previous caesareans carry twice the risk of maternal mortality of all vaginal deliveries (NIH., 1981, p.268). However two studies in the United States found the risk of death from caesarean section to be 10 to 26 times that for vaginal delivery (Minkoff and Schwarcz, 1980, and Evrad and Gold, 1977, in Inch, 1985, p.91). In England and Wales the estimated mortality from caesarean section was more than eight times greater than from vaginal delivery in 1972 (DHSS, 1975, table 8.3). In Sweden in the early 1980s the maternal mortality

rate was 12.7 per 100.000 caesarean deliveries compared to 1.1 per 100,000 vaginal births, meaning that the risk of death from abdominal delivery was twelve times higher than that from vaginal birth (Moldin et al., 1984, p.10).

The most common causes of death as a result of caesarean section are pulmonary embolism, coagulopathy and peritonitis (Moldin et al., 1984, p.8).

Maternal deaths related to anaesthesia, although infrequent, continue to occur and most anaesthesia-related deaths are potentially avoidable (NIH, 1981, p.17). The frequency with which general anaesthesia is used for caesarean deliveries will inevitably influence the fatality rate. In England and Wales pulmonary embolism and complications of anaesthesia have been identified as growing influences among specified causes of death associated with caesarean section. Deaths from these two causes have been classified as an:

*"inevitable risk of any pelvic operative procedure"*  
(Chalmers and Richards, 1977, p.43).

However, although there was a substantial fall in deaths directly related to anaesthesia (Department of Health, 1991, p.122), it could be argued that if many of the caesareans currently being performed on women are unnecessary, as the literature suggests, the risk, however inevitable, is too much to ask any woman to take, particularly as the benefits to her about-to-be-born child are questionable.

Although it is not possible to compare changes in death rates from caesareans as a proportion of total maternal deaths, as the total maternal mortality rates for the whole of the United Kingdom and only deaths from caesareans in England and Wales are available, the data presented in *Table 2.1* are useful in demonstrating the fact that whilst maternal mortality rates overall have continued to decline, deaths rates from caesareans have not reduced substantially since the mid 1970s. What this means is that maternal mortality rates may have reduced still further if the caesarean section rates had not continued to rise.



The latest data available (1985-87) highlight a worrying trend whereby deaths associated with caesareans constitute almost half (43.7%) of the total maternal mortality in the United Kingdom. What this means is that if this trend continues, maternal mortality rates overall will be prevented from reaching their minimal level due to the continued use of caesarean section.

In the three years 1985 to 1987 there were 265 maternal deaths in the United Kingdom. 76 of those deaths were associated with caesarean section. Care was judged to be substandard in 34 cases. In 23 cases the substandard care was directly related to the caesarean section and the post-operative management. The major causes of death were related to hypertensive disorders (Department of Health, 1991, pp.vii, 119 and 122).

One of the most worrying issues arising from these data is that if, as the evidence suggests, many caesareans are carried out unnecessarily, many maternal deaths are potentially avoidable. In the United States it has been estimated that 140 women die each year following caesareans which were not medically indicated (Silver and Wolfe, 1989, in Savage and Francome, 1993, p.495). Although the rate of caesarean sections performed in this country is only half that of the States, and therefore the number of maternal deaths associated with the operation correspondingly less, any level of maternal mortality is intolerable when operations are not necessary.

An increase in the rate of use of the caesarean operation inevitably leads to an increase in the number of maternal deaths in childbirth (Chalmers and Richards, 1977, p.43). This has lead some commentators to suggest that the increasing caesarean rates are responsible for the fact that maternal mortality rates have failed to decrease significantly during the last decades (Chalmers, 1985, p.145). The very serious implication here is that caesarean sections are responsible for keeping rates of maternal mortality relatively high. However, the reporting of maternal mortality is unsystematic and rates of maternal mortality are believed to be underreported in a number of industrialised countries. The cause of death is often attributed to surgical procedures such as anaesthesia accidents and thromboembolism

(Derom et al., 1987, p.180) and are therefore recorded as deaths from surgery rather than deaths from childbirth. Similarly the complex organisation of many hospitals works against the accurate reporting of deaths that occur after transfer to intensive care units or after discharge and readmission (Guillemin, 1981, pp.16-17).

What is more, advances in anaesthetics and intensive care have also meant that the dividing line between mortality and severe morbidity has become less defined. Maternal mortality is therefore not necessarily a very reliable indicator of the effects of caesarean section. However, important differences do exist between countries, regions and hospitals (Derom et al., 1987, p.177) suggesting that differences in maternal mortality are more dependant on medical practice than differences in the populations of women served.

In Third World countries maternal mortality after caesarean section is much higher than in industrialised countries, as high as 3% in some rural hospitals where general duty officers perform most operations, facilities for blood transfusion are scarce, anaesthetic practices poor and risks of infection high. This compares to a mortality rate of 1% in teaching hospitals where conditions are better and more experienced staff are available (Engelkes and van Roosmalen, 1992, p.789). It appears therefore that deaths from caesarean section are influenced by the skills of the medical professionals (obstetricians and anaesthetists) and the availability of adequate hospital services (NIH., 1981, p.268).

Caesarean section is, and will always be, a potentially dangerous operation for the mother, and the added hazard of anaesthesia, of whatever form, should not be underestimated. Although relatively small in number, there is a definite risk of death associated with the procedure. The more common the operation becomes, the more often women will die from causes associated with the procedure. The rates of maternal mortality related to caesarean section are still unacceptably high. For this reason it is imperative that the operation is only carried out in cases of real medical need and not for extraneous reasons such as physicians' convenience, fear of litigation and financial considerations.

## EFFECTS OF CAESAREAN BIRTH ON THE BABY

The literature on the effects of caesarean birth on the baby is limited. The small number of studies conducted tend to concentrate on the first few months following the birth. Research on the long-term effects of caesarean birth on the child's development is, unfortunately, relatively scarce. The limited evidence available does not suggest that increases in the practice of caesarean deliveries has reduced infant morbidity (Guillemin, 1981, p.17) and claims that reductions in perinatal mortality rates observed to coincide with increases in the caesarean section rate represent a causal relationship have not been proved (O'Driscoll and Foley, 1983, p.4; NIH, 1981, p.175). Cases of iatrogenic prematurity in caesarean births is at least one liability that has emerged from the common use of the procedure (Guillemin, 1981, p.17).

### Physiological Effects

The evidence suggests that respiratory distress in the newborn infant is higher after both primary caesarean (White et al., 1985, p.651) and repeat caesarean (NIH, 1981, p.18; Bowers et al., 1982, p.186) than after vaginal delivery. In a study assessing the excess risk to the infant delivered via repeat caesarean section independently of any risk associated with the indication for the procedure, Burt et al. concluded that some excess risk of low apgar scores may be associated with repeat caesarean section procedures (Burt et al., 1988, p.1312). Similarly the NIH report demonstrated that infants from both primary and repeat caesarean births had lower apgar scores than either forceps or spontaneous deliveries (NIH, 1981, p.180). Further, it is not unrealistic to assume that babies will find caesarean birth more of a shock than spontaneous delivery, particularly when the operation is performed before the mother goes into labour. There is evidence to suggest that this shock may make infants slower to breathe and have an effect on their ability to suck (Phillips, 1983, pp.101-2).

*The incidence of respiratory distress syndrome is less amongst infants whose mothers are allowed to go into labour prior to the caesarean being performed than those whose mothers are operated on before the onset of labour (Cohen and Carson, 1985, p.818). This may indicate that the onset of labour is associated with greater preparedness for birth amongst infants.*

### Effects of Anaesthesia and Analgesics

Women who have caesareans are more likely to be given more anaesthesia and analgesic than those who deliver vaginally. The effect of these procedures on the baby are still a matter of controversy. The evidence available suggests that many analgesics and anaesthetics depress respiration in the newborn and may affect its ability to suck (Richards, 1983, p.368). Such effects may be of little consequence on their own, but coupled with other factors associated with abdominal delivery such as maternal depression, pain and immobility, these side-effects could become important stressors on the maternal/infant relationship.

### Special/Intensive Care

It used to be routine practice in many hospitals to take the newborn baby to the Special Care Baby Unit (SCBU) following a caesarean delivery regardless of the original reasons for the operation or the condition of the baby. During the 1970s, 20% of all caesarean babies went to the SCBU for a time following their birth. Nearly half of these were perfectly healthy and not in need of specialist or intensive care (Phillips & Rakusen, 1978, p.439). Although the situation has improved, a proportion of caesarean babies are still routinely taken to the SCBU. The reasoning behind this appears to be that it is 'hospital policy' for certain types of delivery including caesarean and forceps. An alternative explanation could be that in times of strict management of resources it is simply more expedient to have a unit that is over-used in order to justify its existence. Whatever the rationale it seems unnecessary to routinely admit caesarean babies to the SCBU unless there is a clear indication that specialist care or observation is necessary, particularly in the light of evidence suggesting a deleterious effect on bonding from early postpartum separation between mother and child (Klaus and Kennel, 1982, p.56).

### Neonatal Mortality

Both primary and repeat caesarean sections have consistently higher neonatal mortality rates than all vaginal births (NIH, 1981, p.175) and there is no evidence to suggest that higher caesarean section rates improve perinatal or neonatal outcomes.

### Long Term Effects (Psychological and Developmental)

There is evidence to suggest that negative feelings towards the childbirth

experience from the mother can have a long-term effect on the child, relating to problems in social-emotional adjustment. Brith et al. found that mothers who reported themselves to be anxious postpartum, those who thought it would be difficult to cope with the new situation at home and those who were assessed by the psychologist to be anxious or depressed, had children with more social-emotional difficulties at 4 years of age than mothers without these experiences (Brith et al., 1992, p.177). Considering the evidence on the negative effects of caesarean section on the woman's experience of childbirth in terms of increased anxiety and depression (Affonso and Stichler, 1980, p.468; MacArthur et al., 1991, p.171) it is not unreasonable to speculate that caesarean birth may have serious deleterious effects on the long-term development of the child.

However, it has been suggested that caesarean parents see their children in a more positive light than those experiencing vaginal delivery and that this leads to increased expectations from those children. An explanation offered for this is that caesarean-born children tend to have fewer siblings, and as a consequence, might receive more attention from their parents. There is also a negative correlation between family size and school achievement (Entwisle and Alexander, 1987, p.682) which may have an effect on the long term development of the caesarean child.

Overall it appears that the benefits of caesarean section to babies in cases where abdominal delivery was not strictly necessary are dubious. Iatrogenic effects such as shock, difficulty in breathing and sucking (Phillips, 1983, pp. 101-2), routine separation from the mother in the immediate postpartum period (Phillips and Rakusen, 1978, p.439), together with increased risk of mortality (NIH, 1981, p.175) indicate that a more selective approach to the use of caesarean section would be of benefit.

*The number of siblings of caesarean-born children may be fewer because women with caesarean births are often advised to limit their childbearing. (Entwisle and Alexander, 1987, p.682). Furthermore, some women may decide not to have any more children because of negative perceptions about childbirth as a result of caesarean section (Hillan, 1992, p.163).*

## EFFECTS OF CAESAREAN BIRTH ON THE MOTHER-CHILD RELATIONSHIP

In view of the wealth of evidence pointing to negative side-effects of caesarean section for both the mother and her child, it is not unreasonable to assume that these responses will have some repercussions on the mother/child relationship.

The different perceptions of caesarean mothers about their birth experiences, and subsequently their children, compared to women who deliver vaginally may have an effect on the children of caesarean births. Whilst no objective differences in the children born by caesarean and those born vaginally are evident, caesarean mothers have been found to perceive their children to be more difficult, tend to find discipline a problem and have less complete immunisation schedules for their children. They feel that their babies develop into a person later and have less eye-to-eye contact, although overall physical contact has not been found to be different (Trowell, 1989, p.24). Such evidence would suggest that the effects of the birth experience does have a lasting, and possibly detrimental effect on the relationship between mother and child.

### Bonding

Little is known about the long term effects of early separation between mother and infant on the development of the child, or on the relationship between mother and child following a technologically managed delivery. However, for bonding to occur appropriately it is necessary for early mother-infant contact to take place, especially during the first hour after delivery (Klaus and Kennel, 1982, p.56). Similarly, it appears that early and extended contact between mother and child can greatly influence a mother's interaction with her child, their relationship, and ultimately the child's development (Kennel et al., 1974, p.177). This has serious implications for women who have their babies by caesarean as many are separated from their newborns immediately after birth. Frequently caesarean infants spend 24 hours or more under observation in special care units often due to hospital routine or policy rather than medical need (NIH, 1981, p.420; Huntingford, 1985, p.120). Hillan found that amongst her study group of women delivering by caesarean section, almost half did not hold their babies in the 12 hours following the birth and 76% did not feed their

babies in the 24 hours after delivery. Amongst the control group of women who had delivered vaginally 90% held their babies immediately after birth and 92% fed their babies within 24 hours of birth (Hillan, 1992, p.163). This early separation of mother and child following caesarean birth can have a significant impact on their subsequent relationship.

What is more, when women have had caesareans, it is often the case that when the first contact does occur, it comes at a time when the mother is in pain and/or when she is drowsy from the effects of anaesthesia and medication (NIH, 1981, p.421). Not surprisingly women delivered by caesarean section take significantly longer to feel close to their babies than those delivered vaginally (Hillan, 1992, pp. 163-4). A study comparing the mother-infant relationship during the first postpartum visit of caesarean-delivered women and those delivered vaginally showed a difference between the two groups in the frequency and amount of handling of the infants in that the caesarean mothers handled their babies significantly less (Tulman, 1986, p.300). The difference in maternal attitude and behaviour towards the child appears to be related to caesarean birth rather than intervention in the birth process per se as no statistical difference was found amongst women having vaginal deliveries between those women delivered by forceps and those delivering spontaneously (Hillan, 1992, pp.163-4).

Therefore it appears that close contact between the mother and her infant post-caesarean section could improve their relationship and aid the bonding process between them. However, current post-caesarean practice in many hospitals is denying women this opportunity.

### Long-Term Effects

Evidence suggests that caesarean birth may have a deleterious effect on the mothers relationship with her child over a long period of time. Studies have shown that early contact between the mother and her newborn is important, not only for bonding but for the mother-child relationship throughout the early years of the child's life. For example, a study by Marut and Mercer comparing the experiences of women who had had caesarean sections under general anaesthetic with those of women who had had unproblematic vaginal deliveries found that the caesarean mothers' comments about their infants reflected hostility whereas the vaginal delivery

mothers' remarks reflected concern (Marut and Mercer, 1979, p.260). This implies that mothers who are denied close physical contact with their newborns, as many caesarean patients are, particularly those having emergency operations under general anaesthetic, are also being denied the opportunity to develop a close and loving bond with their babies at the crucial time.

Trowell in her work comparing the mother-child relationship between a study group of women who had had emergency caesareans and a control group of women who had delivered vaginally found that one month after the birth the emergency caesarean group mothers had less eye-to-eye contact with their babies than the control group and were less relaxed when bathing their babies. Further, the majority of the study group recollected the birth as a bad experience and expressed concern about their own ability to care for their babies. One year after the birth the study group expressed more dissatisfaction and resentment at the demands made on them by their babies and felt that they had experienced more problems during the first year. They also responded more slowly to their child crying (Trowell, 1983, p.387).

The findings of these studies have major implications for the use of caesarean section concerning the long-term effects of operative birth. Some commentators have gone further and raised alarm regarding the over-use of caesarean section with the accompanying separation of mother and child in the immediate postpartum. Perhaps the most worrying long-term effect of caesarean section that has emerged in two studies is child abuse. Both Lynch and Roberts (1977) and Caffo et al. (1982) identified caesarean delivery as a factor associated with later child abuse (from Fisher, 1990, p.96).

*"The disproportionately high percentage of mothering disturbances, such as child abuse and deprivation failure to thrive, which occur after a mother has been separated from her... newborn infant, force a thorough review and evaluation of our present perinatal practices" (Kennel et al., 1974, p.178).*

#### Breastfeeding

The evidence available on the relationship between caesarean section and breastfeeding is inconclusive. Some studies have suggested that caesarean



delivered women are less likely to breastfeed than those who deliver vaginally (Marut and Mercer, 1979, p.260; Janke, 1988, p.159). This appears to be the case, particularly for women who have operations under general, rather than regional, anaesthetic. Women who have regional anaesthesia for their caesareans tend to feel less tired and depressed and more mobile thereby enabling them to begin breastfeeding sooner than those women who have received general anaesthesia (Morgan et al., 1984, p.329).

In contrast, a more recent study of breastfeeding outcomes to determine the impact of caesarean delivery, found that although mothers giving birth by caesarean had a later first breastfeeding than those who delivered vaginally, there was no relationship between delivery type and duration of breastfeeding or pain or fatigue related to breastfeeding duration (Kearney et al., 1990, p.97). It appears that a high level of commitment to breastfeeding from the mothers is associated with breastfeeding success irrespective of birth type (Kearney et al., 1990, p.97; Janke, 1988, p.159). However, caesarean section does affect women's ease and comfort in breastfeeding as the incision makes feeding more difficult with finding a comfortable position for holding the baby presenting a major problem (Sargent and Stark, 1987, p.1273).

Overall, the evidence once again points to a more conservative use of caesarean section coupled with a review of routine procedures of dubious value to the health of mother and child such as early postpartum separation.

In conclusion it appears that the negative effects of caesarean birth on women are related to use of general anaesthesia, absence of a partner or friend during delivery, lack of detailed information about the events surrounding caesarean birth (Marut and Mercer, 1979, p.260; Fawcett, 1981, p.372; Cranley et al., 1983, p.10), missing out on vaginal delivery, having a longer recovery time, experiencing greater pain (Sargent and Stark, 1987, p.1271), the common practice of routinely separating the infant from the mother at birth (NIH, 1981, p.420; Huntingford, 1985, p.120), emergency rather than elective operations (Trowell, 1986, p.64) and most importantly, the increased risk of fatality from childbirth (NIH., 1981, p.268).

For the babies of caesareans the evidence does not point to better outcomes physiologically or psychologically and caesarean birth actually increases iatrogenic risks including higher rates of infant mortality (Guillemin, 1981, p.17; NIH., 1981, p.175). Furthermore, it has been suggested that caesarean birth affects the long term relationship between the mother and child for reasons associated with surgical delivery alone (Hillan, 1992, pp.163-4).

The sheer volume of evidence pointing to the negative effects of caesarean section highlight the very real need for obstetricians to take a good look at their own practices and ensure that every caesarean is a necessary caesarean. Where abdominal birth is considered to be the best option available, women should be given regional rather than general anaesthesia, be allowed to have a companion with them and not be separated from their babies immediately after delivery unless this is absolutely necessary. Furthermore, women should be made fully aware of all the risks, so that they know what to expect, and can make informed decisions wherever possible.

#### REDUCING THE NEGATIVE EFFECTS OF CAESAREAN BIRTH

The evidence suggests that giving information to expectant parents prior to delivery can enhance reactions to unplanned caesarean birth in terms of decreasing the amount of pain and physical distress experienced whilst increasing self-esteem, enhancing feelings towards the baby and making perceptions of the birth experience more positive (Fawcett and Burritt, 1985, p.227; Fawcett, 1990, p.1423). This looks likely to be the case as previous studies found that pre-operative information given during a personal visit from an anaesthetist was linked with patients feeling less pain post-operatively, requiring fewer analgesics, making a speedier recovery from the anaesthetic and having a shorter stay in hospital (Egbert et al., 1964, p.825; Wilson, 1981, p.79). Similarly, it appears that a pre-operative visit by an anaesthetic nurse to give information about surgery and anaesthetic has benefits for patients post-operatively in terms of reduced anxiety and related symptoms including reduced use of analgesics and earlier ambulation (Kanto et al., 1990, p.39). Further, an evaluation of the effects of sensory information about caesarean delivery on prenatal maternal anxiety and on subsequent recovery found that the patients who

were given the information showed less physiologic arousal during surgery and enhanced postsurgical recovery (Greene et al., 1989, p.484).

It appears that information about caesarean birth given to women pre-operatively enhances their post-operative experience both physically and psychologically. Being better informed about caesarean section helps women adjust emotionally to operative delivery and reduces the likelihood of women suffering long-term psychological disturbance as a result of thwarted expectations (Nolan, 1990, p.36).

Negative reactions to childbirth amongst caesarean patients detailed in this chapter suggest that women need to be more adequately prepared at the antenatal stage and that the possibility of having a caesarean birth needs to be impressed upon all pregnant women in order that they may acquire the information and knowledge that they will need in the event of a caesarean being deemed necessary. Many authors have stressed this point and suggested that information on caesarean delivery should be given to all women irrespective of whether they are thought to be 'at risk' or not. This recommendation is not new, childbirth educators had begun to take account of this necessity during the 1970s (Conklin, 1977, p.52; Enkin, 1977, p.99; Conner, 1977, p.107) and in 1981 the National Institutes of Health Consensus Task Force stressed the point in the United States (NIH., 1981, p.20).

Women themselves have also been shown to equate advance information, whether in the form of an antenatal class, reading material, or as a cautionary statement from a physician, with a state of preparedness (Sargent and Stark, 1987, p.1271). When asked specifically which type of information they require, women's suggestions have included: issues surrounding caesarean birth, advantages and disadvantages of different types of anaesthesia, reasons for, and effects of different surgical incisions, more emphasis on emotional reactions to caesarean birth, and details about the medical and surgical complications associated with caesarean delivery (Fawcett and Burritt, 1985, p.227).

However, results of studies on the effect of information about caesarean birth given to expectant parents are not conclusive and some researchers have found that childbirth classes influence responses to delivery less than pre-existing beliefs, values and expectations (Sargent and Stark, 1989,

p.41). Others have found no significant differences between women given comprehensive caesarean birth information and those given standard childbirth information in terms of their perceptions of the birth experience, physical distress, self-esteem, functional status, feelings about the baby, or quality of the marital relationship (Fawcett et al., 1993, p.52). This particular study was carried out in the United States and it has been suggested that the current high caesarean section rate may itself encourage expectant and new parents to view caesarean birth as a normal or alternative mode of delivery (Culp and Osofsky, 1989, p.56).

It has been argued that as childbirth classes now routinely address the possibility of caesarean birth and attempt to prepare expectant parents for a surgical delivery, the negative sentiments following abdominal delivery may become less prevalent, mitigated by preparation (Sargent and Stark, 1987, p.1271). It is certainly the case that many pregnant women do attend antenatal classes. Hillan found that 76% of her sample of women had attended at least one antenatal class (Hillan, 1992, p.165). But the results of studies on the effects of antenatal education including information on caesarean birth continue to suggest that expectant parents need to be prepared for unanticipated caesarean delivery (Fawcett and Henklein, 1987, p.64) and that this is not resulting from current antenatal education practice despite the inclusion of information on caesarean section. Comments made by childbirth educators consistently indicate that content about caesarean delivery routinely presented in childbirth classes does not prepare expectant parents for the possibility of caesarean delivery (Fawcett and Burritt, 1985, p.230). It appears that expectant parents are reluctant to accept the information regarding surgical delivery or even attend the classes relating specifically to it, probably because they see it as something that happens to other people (Hedahl, 1980, p.21), particularly when their own pregnancy has been unproblematic. One respondent in a study designed to investigate the value of information on caesarean birth in the form of a detailed pamphlet to expectant parents still reported that he *"thought it wouldn't happen to us"* (from Fawcett and Burritt, 1985, p.227).

Thus it appears that there continues to be a lack of realistic preparation for labour and delivery in general, and the possibility of surgical birth in particular amongst women having babies. It has been suggested that expectant parents not only need information on caesarean birth in the form

of antenatal class or printed material, but that the message needs to be emphasised by a follow-up home visit or telephone call to reinforce the information (Fawcett and Burritt, 1985, p.230). In their study Fawcett and Burritt found such arrangements to be beneficial to expectant parents in that it provided an opportunity for clarification of the written material and provision of additional information about pregnancy in general and caesarean birth in particular (Fawcett and Burritt, 1985, p.227).

Further, it appears that giving information to women about caesarean birth prior to delivery not only enhances their childbirth experience but may actually have an effect on intervention rates. This is because better-informed patients may question levels of intervention and be in a position to discuss the relative benefits and hazards of the available procedures. But is more likely to do with the fact that practitioners who deem it important to keep women informed at all stages of delivery are also the ones more likely to be questioning their own practices in the light of evidence suggesting that increased levels of intervention do not necessarily improve maternal and perinatal outcomes. A study in Vienna found that a pre-childbirth educational programme of intensive preparation together with a policy of minimal intervention in delivery reduced the incidence of caesarean section to 1.3% (Rockenschaub, 1990, p.977).

## Chapter Thirteen

### WOMEN'S EXPERIENCE OF CAESAREAN BIRTH

---

#### THEORY OF CURRENT RESEARCH

Previous research on caesarean section has exhaustively analysed the indications for the operation, reasons for the increasing rate and women's perceptions of childbirth in general and surgical delivery in particular. This study differs, however, in eliciting responses from women on a range of issues relating to caesarean birth and by comparing the information given to women about the reasons for their operations to the reasons given by obstetricians as to why they actually perform caesarean sections. Although much research has been carried out into the effect that being better informed about caesarean birth has on the outcome of the operation for the women involved, what is missing from the current literature is an examination of how much information women are currently being given in hospitals in Britain and, more specifically, an assessment of the accuracy of that information.

With the current emphasis on 'consumer choice' in health care services it is a matter of concern that there are virtually no public disclosure requirements placed on practitioners that would make them provide information to their customers (patients) about the quality of their services or their competence to perform these services. Thus when doctors recommend a particular course of action or type of treatment to pregnant women they do not have to support their recommendations with evidence. It appears that the popular tenet 'doctor knows best' overrides the need to justify medical decisions. What is more worrying is that when women are advised about the appropriate course of action they are often not given the information they need to make informed decisions. At best they are misinformed, at worst they are lied to. What this means is that women make decisions (or agree to decisions) that may not be in their best interest. Caesarean sections provide a powerful and contemporary example of how women are often deceived into

one course of treatment when another less invasive one may be appropriate.

The theory underpinning this research is that if women are to make informed choices about how they want to deliver their babies, what support and help they will need and what medical treatment, if any, is suitable, what they need from health care professionals is accurate, consistent information imparted at a level that women can understand, from a professional that they have been able to establish a relationship with and whom they trust. Only then will women be empowered to have control over what happens to them in hospital and enabled a sense of achievement through having participated in the decision-making process leading to feelings of greater satisfaction with the experience of childbirth.

By concentrating on the relationship between women and obstetricians rather than midwives, it is not my intention to relegate midwives to an inferior role but rather to examine the deficiencies in the obstetrician-patient relationship and suggest ways in which the situation could be improved for all concerned. Research is currently needed into the role of midwives in contemporary care of pregnancy and parturition. However it appears to be the case that less use of interventionist techniques leads to greater satisfaction for health care professionals too, particularly midwives who are able to deal with the majority of births as they are unproblematic, thereby relieving pressure on obstetricians who are then left to deal with the minority of cases which require their specialisms and expertise.

The increased use of interventionist techniques in childbirth have not led to improvements in perinatal morbidity or mortality and could be responsible for increases in iatrogenic effects as well as higher maternal morbidity and possible long term deleterious effects on the mother-child relationship. It is my contention therefore, that less use of interventionist techniques, caesarean section in particular, coupled with appropriately informed expectant women, will lead to a better outcome for the mother, child and health care professional.

## HYPOTHESES AND RESEARCH QUESTIONS

Evidence suggests that more caesareans are being performed than can be justified in terms of neonatal/perinatal or maternal outcomes. Too many caesareans are performed for extraneous reasons such as fear of litigation, rather than medical necessity. The evidence available suggests that caesarean birth has a detrimental effect on women. The aim of the current research is to investigate women's experiences of caesarean section.

Hypothesis One: Caesarean birth denies women the opportunity to have a satisfying experience of childbirth and increases their suffering.

Research Question: Do women suffer as a result of caesarean sections?

Hypothesis Two: Maternity services can be improved with regard to caesarean section to ensure a better outcome for women.

Research Question: What can be done to improve the outcome for women of childbirth in general, and caesarean section in particular?

## METHODS

This study utilised a survey design, together with interviews, to assess the experiences of women having caesarean sections. The aim of the survey was first to find out from women the reasons they had been given for their operations in order that a comparison could be made with the reasons given by consultants as to why they perform the operations. Secondly, to analyse women's experiences of caesarean birth in the light of current debate on the effects of medical intervention and suggest ways in which the management of birth can best be achieved to ensure a satisfactory outcome for all concerned.

### 1. THE SAMPLING PROCEDURE

A sample consisting of one hospital from each of the Health Authority



regions was randomly selected to represent the region. Permission to conduct the survey of women's experiences was requested from consultant obstetricians responsible in each case. Eleven hospitals, geographically spread across the country, agreed to take part in the study, the remainder either failed to respond or refused to take part. The two-page questionnaires were sent out along with covering letters (see Appendices 1 and 2) to the participating hospitals with the request that they be handed to 50 consecutive women who have caesareans.

## 2. THE QUESTIONNAIRE

The questionnaire asked for quantitative data about the women, the operations and the babies, as well as qualitative information regarding the women's experiences and feelings about the births. The questionnaires were coded and entered on to a computer where the data were analysed using the Supastats package.

## 3. THE RESPONSE RATE

### 3.1 Response Rates By Hospital

Completed questionnaires were received from 9 of the 11 hospitals which agreed to participate, that is, a response rate of 81.8%.

### 3.2 Response Rates By Women

The number of questionnaires received from each hospital varied from 20 to 50. Reminder letters were sent to those hospitals not returning the 50 questionnaires. Collection of questionnaires ceased when the sample reached 300 respondents.

Unfortunately I have no information on non-responses but as the responsibility for distribution of the questionnaires rest with the hospitals, non-response is more likely to do with administrative hitches rather than refusal. Refusal to complete the questionnaires on the part of women could, obviously, account for some of the non-response but is unlikely to have an effect on the overall results. Judging by the depth of detail that some women entered into on the questionnaire and the time and effort taken by many to answer the

questions as thoroughly as possible, it appears that women are glad to be given the opportunity to express their views about this issue which affects them so deeply.

#### 4. THE INTERVIEWS

Formal and informal interviews were conducted with seventeen women who have had caesareans. Interviewees volunteered by indicating that they would like to participate further in the study at the end of the questionnaire they had completed in hospital. Thus interviewees were already part of the survey sample and their data included as such. The purpose of the interviews was to support the findings of the survey and add to the qualitative evidence in the results.

Formal interviews were semi-structured based on the survey questionnaire. Women were given the opportunity to expand on answers given in the questionnaire and add any information they deemed relevant.

#### 5. THE SAMPLE

Of the three hundred caesareans in this sample 132 (44.0%) were elective and 168 (56.0%) were emergency operations. The respondents were further divided into three categories vis: first births, previous vaginal deliveries and previous deliveries including caesareans. The data were tabulated as follows:

Table 2.2: THE SAMPLE

	ELECTIVE		EMERGENCY		BOTH GROUPS	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
First births	27	20.5	115	68.5	142	47.3
Previous vaginal deliveries	25	18.9	36	21.4	61	20.4
Previous caesarean sections	80	60.6	17	10.1	97	32.3
Total	132	100	168	100	300	100

Almost half (47.3%) of caesarean sections were being carried out on women who were giving birth for the first time. Over two in three primiparas (68.5%) had emergency operations whereas three out of five (60.6%) women who had elective sections had previous caesareans.

### 5.1 AGE

Respondents were divided into seven age bands. The data were tabulated as follows:

Table 2.3: AGE OF WOMEN HAVING CAESAREANS

AGE (years)	Elective		Emergency		All Caesareans	
	n	%	n	%	n	%
15 - 19	6	4.6	11	6.6	17	5.8
20 - 24	14	10.9	35	21.1	49	16.6
25 - 29	43	33.3	55	33.1	98	33.2
30 - 34	45	34.9	48	28.9	93	31.5
35 - 39	18	14.0	16	9.7	34	11.5
40 - 44	2	1.5	1	0.6	3	1.0
45+	1	0.8	0	0.0	1	0.4
Total	129	100	166	100	295	100

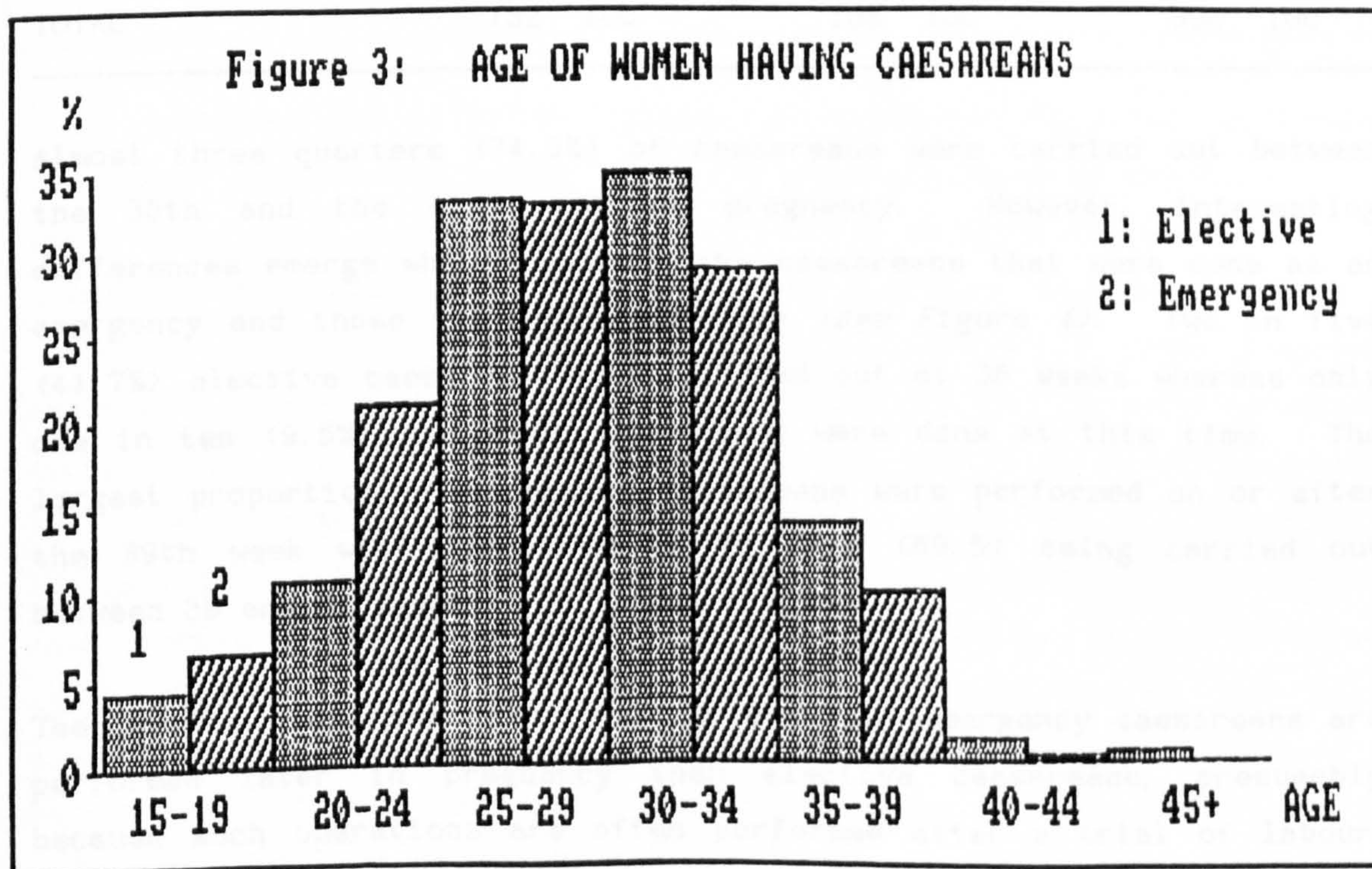
*Five women who did not answer are excluded from this table.*

The majority of women having caesareans were aged between 20 and 39 years. Almost two in three (64.7%) were between 25 and 34 years old. (See Figure 3).

There were more emergency caesareans amongst women under 24 years of age, over 1 in 4 (27.7%) as compared to less than 1 in 6 (15.5%) of elective caesareans. In contrast more elective caesareans were performed on women over 35 years of age, one in six (16.6%) as opposed to one in ten (10.3%) emergency operations.

The four women in this sample who were over 40 years of age had elective caesareans, all had previously given birth including at least one previous caesarean, however the reasons for these women's caesareans were not to do with their age but other conditions such as previous caesareans, breech presentation and the baby being too big for the woman's pelvis.

Maternal age has always been a consideration in decisions on whether or not to perform a caesarean. The older a woman is, the more likely she is to be delivered by caesarean. It was not within the remit of the current study to examine the numbers of caesareans as a proportion of women giving birth in each age group but the results demonstrate that age has an effect on whether women have emergency or elective operations. 3% of elective caesareans were performed because of the women's age whereas only one woman having an emergency operation was given this reason. Younger women (that is, those under 24 years of age) were more likely to be given emergency caesareans than older women, probably because these women were more likely to be primiparas and therefore not have the experience of previous births. Women over 35 years of age were more likely to have elective caesareans. This is not surprising considering that older women are more likely to have given birth previously and decisions about caesarean section may be based on their previous medical histories.



## 5.2 STAGE OF PREGNANCY WHEN CAESAREANS PERFORMED

Women were asked 'How many weeks pregnant were you when your baby was born?'

Table 2.4: *No. OF WEEKS PREGNANT WHEN BABIES BORN*

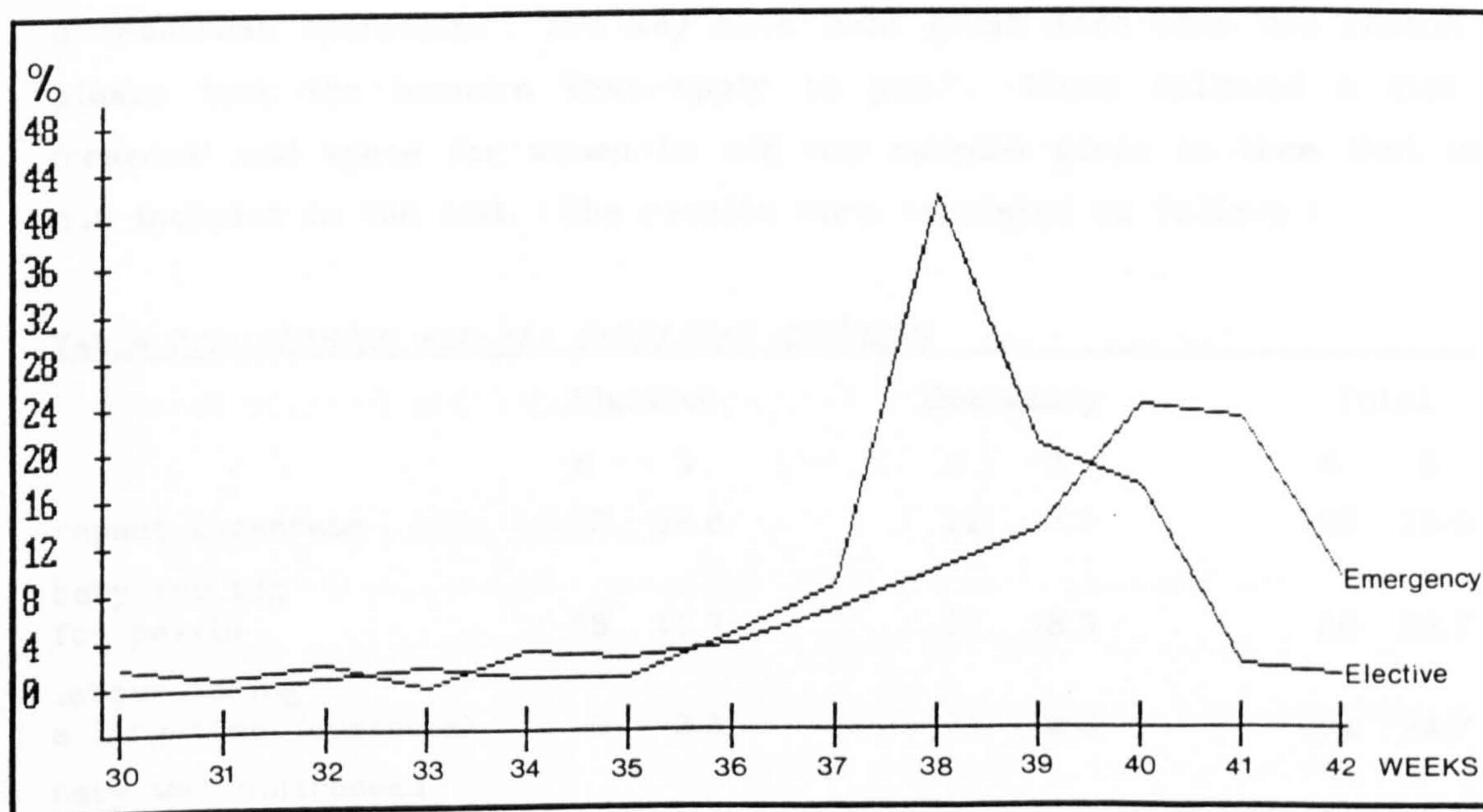
No. of weeks	Elective		Emergency		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
30	0	0.0	3	1.8	3	1.0
31	0	0.0	1	0.6	1	0.3
32	1	0.8	3	1.8	4	1.3
33	2	1.5	0	0.0	2	0.7
34	1	0.8	5	3.0	6	2.0
35	1	0.8	4	2.4	5	1.7
36	6	4.5	6	3.6	12	4.0
37	11	8.3	11	6.5	22	7.3
38	55	41.7	16	9.5	71	23.7
39	27	20.4	22	13.1	49	16.3
40	22	16.7	40	23.8	62	20.7
41	2	1.5	38	22.6	40	13.3
42	1	0.8	15	8.9	16	5.3
<i>No Answer</i>	3	2.2	4	2.4	7	2.4
<b>TOTAL</b>	132	100	168	100	300	100

Almost three quarters (74.0%) of caesareans were carried out between the 38th and the 41st week of pregnancy. However, interesting differences emerge when comparing the caesareans that were done as an emergency and those that were elective (see Figure 4). Two in five (41.7%) elective caesareans were carried out at 38 weeks whereas only one in ten (9.5%) emergency caesareans were done at this time. The largest proportion of emergency caesareans were performed on or after the 39th week with almost three in five (59.5) being carried out between 39 and 41 weeks.

The results therefore show that, on average, emergency caesareans are performed later in pregnancy than elective caesareans, presumably because such operations are often performed after a trial of labour. However, with elective caesareans there is no necessity to wait for the woman to go into labour and the decision about when to operate is left to the doctors. Kitzinger stated that caesarean surgery is usually arranged for the 39th week of pregnancy (Kitzinger, 1980, p.263). The

present study found that elective caesareans peak at week 38 and the results are therefore consistent with accepted practice regarding the timing of elective caesarean operations.

**Figure 4: No. of Weeks Pregnant When Caesareans Performed**



Today there appears to be an 'optimum' or 'preferred' time for performing caesareans at around 39 weeks. Such decisions are based on the belief that there is an ideal gestation period and that the majority of women will fall into this statistical category. However, such notions could be problematic for women who do not, as these women are still likely to be given caesarean sections at this time. It is commonly accepted that women's menstrual cycles rarely fit into the 28 day ideal so why should it be expected that all women's gestation periods should fit neatly into the 39 week model? This may have serious implications for the babies of women who have longer than average gestation periods in that it means that they may be delivered too early. Similarly, for women whose natural gestation is less than average, their babies will be left in-utero too long and this could have a deleterious effect on both mother and child. Presumably decisions on when to operate are made on the basis of a combination of factors which take into consideration the size and condition of the baby as well as the physical and mental state of the woman. The size, or rather the weight, of the baby is considered below (p.179).

## RESULTS

### 1. THE OPERATION

#### 1.1 Reasons for Caesarean Section

The mothers were asked: 'What reason(s) did the doctors give for performing a caesarean operation? You may have been given more than one reason so please tick the answers that apply to you.' There followed a list of 'reasons' and space for women to add any reasons given to them that were not included in the list. The results were tabulated as follows :

Table 2.5: REASONS FOR ALL CAESAREAN SECTIONS

	Elective		Emergency		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
repeat caesarean	75	56.8	12	7.1	87	29.0
baby too big for pelvis	55	41.7	31	18.5	86	28.7
labour taking a long time (dystocia)	3	2.3	71	42.3	74	24.7
baby was distressed (foetal distress)	1	0.8	61	36.3	62	20.7
baby in breech position	38	28.8	19	11.3	57	19.0
bleeding before birth	4	3.0	12	7.1	16	5.3
cord around baby's neck	2	1.5	11	6.5	13	4.3
baby lying across womb (transverse)	4	3.0	5	3.0	9	3.0
baby was small for dates	4	3.0	3	1.8	7	2.3
diabetes	4	3.0	2	1.2	6	2.0
cord prolapse	1	0.8	2	1.2	3	1.0
Other reasons	25	18.9	40	23.8	65	21.7
Total Reasons	216		269		485	
Average No. reasons per woman	1.6		1.6		1.6	
Total Women	132		168		300	

*Percentages total more than 100 as some women were given a number of reasons for their caesareans.*

#### 1.1.1 Overall Reasons

The results show that some women were given as many as three or four reasons for caesarean section and others only one. On average 1.6 reasons

were given per woman. The reasons given to women were quite widespread. For example, almost three out of ten women (29.0%) were told that their caesareans were necessary because they had previous caesareans. A similar number (28.7%) were told that their babies were too big for their pelves. Almost a quarter (24.7%) of women were told that their labour was taking a long time. One in five (20.7%) were told that their babies were distressed and an equal number were given caesareans because their babies were in breech position (19.0%). Explanations given in the 'Other reasons' section showed no commonalities between caesareans performed as emergencies and operation performed electively.

Reasons given to women for their caesareans vary. However they can be ranked as follows, beginning with the most common reason:

#### 1.1.2 Repeat Caesareans (29.0%)

Almost a third of women were told that their caesareans were necessary because they had previous caesareans. From the data obtained in this study it is not possible to say whether this was because of hospital policy of 'once a caesarean always a caesarean'. However, a survey of consultants' attitudes towards caesarean section revealed that less than one in fifty consultants in England and Wales adheres to this policy (Francome et al., 1993, pp.123-4) and so it is unlikely that it is this dictum which is responsible for the high number of repeat caesareans. It is therefore more likely that repeat caesareans are one of the most common indicators for the operation because the reasons for the previous operation, for example, size of pelvis, will remain the same. It may also be that women request elective operations because of their previous experiences of trial of labour which ended in caesarean section. If this is the case, it reflects lack of information given to women about the feasibility and value of VBAC.

#### 1.1.3 Size of Pelvis (28.7%)

Almost a third of women were told that their babies were too big for their pelves. This is slightly less than the proportion of caesareans performed for this reason found in one study in the United States where 40% of operations were carried out because of the size of women's pelves (Sargent and Stark, 1987, p.1271). However, there may be sample differences. If the American study contained more elective operations a comparable number would



be evident, as in the present study 41% of elective operations were performed for cephalopelvic disproportion.

A caesarean rate of almost 29% for cephalopelvic disproportion is surprising, given a caesarean rate nationally of almost 13%. This means that 4.5% of the childbearing population have babies which are considered to be too big for their pelves. It was not within the remit of this research to investigate the size of women's pelvic openings in comparison to the size of their babies so the extent to which this is actually the case is left to speculation. However, it does appear to be unlikely that 4.5% of women of childbearing age have babies that are too large for their pelves. What this may indicate therefore is that women are being given this explanation for alternative reasons. It may be the case, for example, that rather than attempt a labour which may be problematic, the consultant decides that an elective caesarean is preferable. Similarly it could be that time can be saved if the consultant opts for an elective caesarean rather than allowing the woman a full trial of labour which may possibly end with an emergency caesarean in any case.

However, assessments of women's pelvic size are problematic. Evidence suggests that attempts to assess whether or not the baby can pass through the pelvis are unreliable predictors since some women whose pelves have been shown to be 'radiologically inadequate' have succeeded in giving birth vaginally. Further, women whose pelves have been assessed as 'radiologically adequate' have required emergency caesareans (Krishnamurthy et.al., 1991, p.716).

As it is unlikely that 4.5% of women of childbearing age have pelves that are too small for delivery, doubts are raised concerning the value of current measurement and practice. Evidence suggests that unless women's pelves are clearly shown to be inadequate, they should be encouraged to deliver vaginally.

#### 1.1.4 Prolonged Labour (24.7%)

A quarter of women were told that their caesareans are necessary because their labour was taking a long time. This finding is comparable to the results of a Dallas study which found that one in five (20%) of caesareans were performed because of the duration of labour (Sargent and Stark, 1987,

p.1271). Although this reason may accompany other reasons such as foetal distress it is still a surprisingly high proportion. 1 in 4 women in England and Wales not being able to deliver within what are perceived to be the appropriate timescales and therefore being subjected to operative delivery. Yet medical estimates of what constitutes a long labour vary. In the British Birth Survey of 1958, twenty four hours was considered long (Butler and Bonham, 1963, in Francome et al., 1993, p.67). But by 1970, eighteen hours was taken as the time beyond which a labour was deemed long (Chamberlain and Chamberlain, 1975, in Francome et al., 1993, p.67). A recent British survey found that of 39 consultants who said that they put a time limit on labour, just over half (20) said the limit was twelve hours. One consultant said he considered the labour long and the woman in need of a caesarean *"if the sun had set twice on her labour"*. The longest time limit for labour given by one consultant was thirty six hours (Francome et al., 1993, p.67).

It has been suggested that intervention in childbirth is accelerated by an emphasis on time scales combined with a rigid adherence to the three stage of labour (Savage, 1986, p.63). The results of the present study certainly add weight to this argument. This raises concerns over who decides what are the appropriate timescales and on what basis such decisions are made. However, when comparing the results of this study with those of the survey of consultant's attitudes to caesarean section, an interesting difference emerges. Almost nine out of ten (89.4%) consultants in England and Wales said that they placed no time limit on labour when deciding to perform a caesarean (Francome et al., 1993, p.67), yet one in four women having caesareans are told that their labour is taking too long.

This discrepancy can be explained in two ways which both relate to lack of honesty amongst the medical practitioners. The first explanation is that women are not being told the truth about the reasons for their caesareans, it does not necessarily mean that women are being deliberately lied to, but rather that for a variety of reasons women are not being given the full explanation. This may be because doctors do not want to upset women, particularly in a situation where they may already be distressed because of a long and painful labour. Women are therefore told that they are having a caesarean because the labour is taking too long rather than being told that the baby is in distress or that there may be something more serious wrong

with the baby. Similarly, women may not be given all the facts if the doctor does not feel that they will be able to fully understand their condition. There is a general acceptance amongst both the medical profession and the laity that it is doctors who know best in such circumstances and that the women concerned either do not need to know the full rationale behind the decision, or that they will not be able to fully understand the medical necessity for such a decision. A final factor in telling women that their labour is taking too long may be that, after a prolonged and exhausting labour women are more likely to agree to the operation as they can more immediately relate to what is being said than if the doctor was to go into a long and detailed explanation about their condition.

A second explanation for the discrepancy between what women are being told and the reasons that consultants say they perform caesareans is that consultants may be reluctant to give the full information to researchers particularly if they feel that the research may depict them in a bad light. For example, consultants may be reluctant to admit that caesareans are performed because of factors such as length of time in labour as they may then leave themselves open to criticism and accusations of performing operations to suit their own convenience and/or the use of hospital resources rather than medical necessity.

#### 1.1.5 Foetal Distress (20.7%)

One in five women having caesarean sections were told that their babies were distressed. This result is similar to the outcome of an American study which found that 17% of caesareans are performed for this reason (Sargent and Stark, 1987, p.1271). Foetal distress as an explanation for caesarean birth, often accompanies other reasons such as labour is taking too long and/or cephalopelvic disproportion. Yet interpretations of the term 'foetal distress' may differ because of the vagueness of definition. It is also clear that foetal distress is not an absolute indication for caesarean section. From the results of a survey of consultants' opinions on caesarean section, it is apparent that doctors are more likely to perform caesarean section for foetal distress as the term of pregnancy increases, that is, only 2% said they would perform a caesarean for foetal distress at 24 weeks whereas by 26 weeks 25% said that they would (Francome et al., 1993, p.121). Thus the example of foetal distress serves to highlight the

fact that the decision to perform a caesarean section may rest more on the individual preference of the consultant attending the birth rather than sheer medical necessity.

#### 1.1.6 Breech Presentation (19%)

Almost one in five caesareans were performed because of breech presentation. This represents a substantial rise in the use of caesarean section for infants presenting in breech.

The survey of consultants' attitudes revealed that only one in seven (14.5%) have a policy of caesarean for breech presentation. Almost a third (30.8%) said that it would depend on the circumstances of individual cases (Francome et al., 1993, p.123). But it is clear from the results of the current study that breech presentation is still seen to justify the necessity for caesarean section in a substantial proportion of cases.

Thus the results of the current study have demonstrated that the main indicators for caesarean section were repeat operations, cephalopelvic disproportion, dystocia, foetal distress and breech presentation. However, the results reveal great differences in the reasons according to whether there was an emergency or a elective caesarean.

#### 1.2 Reasons for Elective Caesareans

Table 2.6: REASONS FOR ELECTIVE CAESAREANS

	<i>n</i>	%
repeat caesarean	75	56.8
baby too big for pelvis	55	41.7
baby in breech position	38	28.8
bleeding before birth	4	3.0
baby lying across womb (transverse)	4	3.0
baby was small for dates	4	3.0
diabetes	4	3.0
labour taking a long time	3	2.3
cord around baby's neck	2	1.5
baby was distressed (foetal distress)	1	0.8
cord prolapse	1	0.8
Other reasons	25	18.9
Total Reasons	216	
Average No. reasons per woman	1.6	
Total Women	132	

*Percentages total more than 100 as some women were given a number of reasons for their caesareans.*

The results show that three major indications account for 77.8% of all reasons given for elective caesareans. These are: previous caesareans, size of pelvis in relation to size of the baby and breech presentation. Almost three in five (56.8%) elective operations are carried out because women have had previous caesareans. Two in five women (41.7%) were told that their babies were too big for vaginal delivery and almost three out of ten women (28.8%) were operated on because their babies were in breech position. 'Other' reasons specified by women for their elective operations included their age (3.0%) and the existence of fibroids (2.3%). Neither of these reasons were mentioned by women having emergency operations presumably because such factors are determined antenatally. Lesser reasons for elective caesareans included unstable foetal position; previous problems with vaginal delivery; placenta praevia and oblique presentation.

### 1.3 Reasons for Emergency Caesareans

Table 2.7: REASONS FOR EMERGENCY CAESAREANS

	<i>n</i>	%
labour taking a long time	71	42.3
baby was distressed (foetal distress)	61	36.3
baby too big for pelvis	31	18.5
baby in breech position	19	11.3
repeat caesarean	12	7.1
bleeding before birth	12	7.1
cord around baby's neck	11	6.5
baby lying across womb (transverse)	5	3.0
baby was small for dates	3	1.8
diabetes	2	1.2
cord prolapse	2	1.2
Other reasons	40	23.8
Total Reasons	269	
Average No. reasons per woman	1.6	
Total Women	168	

*Percentages total more than 100 as some women were given a number of reasons for their caesareans.*

This table shows that, once again there are a few major reasons that women were given for their operations. However the indications are not so concentrated for emergency caesareans as they are for elective. The two

major reasons were that labour was taking a long time and that the baby was distressed. These accounted for almost half (49.1%) of all reasons given to women having emergency caesareans. This highlights a very large difference between the elective and emergency caesarean groups in that these two reasons accounted for only 1.9% of reasons for elective operations. The third most common reason given for emergency sections was that the baby was too big for the woman's pelvis. Nearly one in five women (18.5%) were told this. This is surprising considering that such factors are usually anticipated through antenatal tests.

Two in five (42.3%) of the women having emergency sections were told that labour was taking too long and almost the same number (36.3%) were told that their baby was in distress. (*Some women may have been given both of these explanations*). Other reasons given to women for their emergency caesareans included high blood pressure (4.1%), maternal distress (1.5%) and protein in the urine (1.1%).

#### 1.4 WOMEN REQUESTING CAESAREAN SECTION

In an attempt to ascertain whether the increase in the use of caesarean section was due to doctors responding to women's requests they were asked: 'Did you ask to have a caesarean section?'

Table 2.8: WOMEN REQUESTING CAESAREAN SECTION

	Primiparas		Previous caesarean section		Previous vaginal birth		All Groups	
	n	%	n	%	n	%	n	%
Requested C/S	11	8.0	21	21.9	7	11.5	39	13.2
Didn't request C/S	127	92.0	75	78.1	54	88.5	256	86.8
Total	138	100	96	100	61	100	295	100

*Five women who did not respond to this question are excluded from the table.*

The results show that in total just over one woman in eight (13.2%) asked for a caesarean. There were significant differences in the percentage of women requesting caesarean section according to whether

she was having her first baby or because of her previous experience of childbirth ( $P=.01$ ;  $\chi^2_{c=1}=9.744$ ;  $df=2$ ). One in five (21.9%) of the women who have had a caesarean for their first delivery asked for another. This contrasts with only one in twelve (8.0%) of the primiparas. Over half (53.8%) the women requesting the operation had previous caesareans.

Women who answered "yes" were asked why they had requested a caesarean section.

Many of the women for whom this was not the first caesarean said that they had requested the operation because the original reasons for previous caesarean were still valid. Others stressed their desire to pre-empt the need for an emergency caesarean.

*"I didn't want to go through labour and end up having a section like last time".*

Others had requested caesareans because of concern for their babies, presumably based on their previous experiences saying for example:

*"I didn't want to put baby in distress".*

And:

*"Fear of baby in trouble again".*

Similarly those women who had previously given birth vaginally but had requested a caesarean for this birth stated reasons to do with their past experience(s), for example:

*"Previous difficult delivery".*

Some women having their first child requested a caesarean. These were more often than not performed as an emergency after a trial of labour.

*"I was in constant pain for hours and felt that I couldn't go on any longer".*

One woman stated that she requested the operation because of her:

*"Very painful labour".*

Another said that she asked for a caesarean because:

*"I was told that forceps would be necessary and I would not agree to their use".*

So some women do ask for the operation because of current or previous experiences. However, any increase in the rate of caesarean sections nationally cannot be attributed to women requesting the operation as, overall, more than four out of five (86.8%) women having caesareans did so on the advice of the medical practitioners.

This means that it is very important for women to understand why the operations are being performed and that they need to be given the appropriate information to understand what is happening to them and be able to feel that they have, in some way, taken part in the decision-making process. The reasons that women are told for their caesarean operations tend to indicate that they are not always being given all the information. At best, they are partially informed, at worst, the evidence suggests that women are being lied to.

Those who request a caesarean are more likely to have had a previous one. Over one in five (21.9%) of women with previous caesareans requested another. This is similar to the finding in Shepperd McClain's 1990 study following which she suggested that fear of failed trial of labour leads some women to prefer elective caesarean section (Shepperd McClain, 1990, p.203). The results of the present study support this. One woman said that she had requested a caesarean because:

*"I anticipated I would need one and did not want another emergency operation".*

Others expressed concern for the infant:



*"I feel it's the safest option for the child".*

This may indicate first that some consultants are still reluctant to allow VBAC, and secondly that women are not being given enough information to make informed decision about VBAC. Evidence from other studies shows that where VBAC is encouraged in hospitals, only a third of women elect caesarean section (Shepperd McClain, 1990, p.205). It is surprising therefore that this reason did not emerge in the consultants' survey. No consultants mentioned women requesting caesarean as a reason for performing the operation (Francome et al., 1993, pp. 120-138). This may be because other reasons such as the woman's pelvis being too small will have been indicated (where this applies) whether or not the woman actually requested the operation. Another explanation may be that doctors are reluctant to indicate women's preference as a reason for performing an operation as this may be construed as having some of the power and authority taken out of their hands.

#### 1.5 TYPE OF ANAESTHESIA

Women were asked 'During the operation were you awake or asleep?' The results show that overall three in five (60.3%) women were asleep during their caesarean operations. However, three quarters (75.0%) of women having emergency sections were asleep during the operation compared to only two in five (41.7%) women having elective caesareans.

The next question requested more specific information about the type of anaesthetic that women were given. The results were tabulated as follows:

Table 2.9: TYPE OF ANAESTHESIA

	Elective		Emergency		Total	
	n	%	n	%	n	%
EPIDURAL	40	30.3	30	17.9	70	23.3
SPINAL	35	26.5	9	5.4	44	14.7
GENERAL	55	41.7	119	70.8	174	58.0
MORE THAN ONE TYPE	2	1.5	10	5.9	12	4.0
TOTAL	132	100	168	100	300	100

The results show that almost three in five (58.0%) women having caesarean sections were under general anaesthetic for the birth of their babies,. The highest proportion of these being in the 'emergency' category where over two out of three (70.8%) were given general anaesthesia. Even though over two out of five (41.7%) women receiving elective caesareans were also under general anaesthetic at the time their babies were born, the difference between the two groups, in terms of whether local or general anaesthesia was used for their operations, is still highly significant ( $P=.0005$ ;  $\chi^2_{cal}=37.969$ ;  $df=2$ ).

### 1.6 SUPPORT DURING BIRTH

Women were asked 'Did you have a friend/partner present for the birth?'  
The results were:

Table 2.10: PARTNERS PRESENCE DURING BIRTH

	Elective		Emergency		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Partner present	85	65.9	75	46.3	160	55.0
Partner not present	44	34.1	87	53.7	131	45.0
<b>TOTAL</b>	<b>129</b>	<b>100</b>	<b>162</b>	<b>100</b>	<b>291</b>	<b>100</b>

*Women who did not answer are excluded from this table.*

Table 2.10 shows that just over half (55.0%) of women having caesareans had their friend/partner present during the birth. More of the women in the 'elective' category had their partner/friend present during the operation, two out of three (65.9%) whereas over half (53.7%) of women having emergency operations did not have a friend/partner present. Thus a significant difference exists between women having elective and

*This percentage is slightly lower than the number of women who said that they were asleep for their operations because of the inclusion of an additional category in table 2.9, that is, women who had 'more than one type' of anaesthesia. Obviously the 60% of women who were asleep for their operations had general anaesthesia.*

those having emergency operations as to whether they have a companion present during the birth ( $P=.005$ ;  $\chi^2_{c=1}=10.363$ ;  $df=1$ ).

Women who said that they did not have a friend/partner present for the birth were asked 'why?'

Of the 131 women in this category 102 reasons were given. The overwhelming majority of reasons (79.4%) were to do with hospital/doctor policy regarding caesarean sections or the fact that the emergency situation of the operation meant that either partners were not allowed into the operating theatre or they could not have got there on time even if they were allowed in. A further 13.7% of reasons related to the partner themselves, for example they are too scared/nervous; because they could not get time off of work or they were unwell; or because the friend/partner did not want to be there. The final 6.9% of reasons were that the woman did not want to be accompanied during the operation. However, the results indicate that the majority of women would prefer to have their friend/partner with them during the birth and it is the organisation of hospital services which is preventing this.

## 2 INFORMATION GIVEN TO WOMEN

### 2.1 Before the Operation

Women were asked 'Before the operation were you able to find out all you wanted to know about your condition and that of your nearly born baby?' The results were:

Table 2.11: WERE WOMEN ADEQUATELY INFORMED ABOUT THEIR CONDITION?

	Elective		Emergency		Both Groups	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
YES	125	95.4	134	81.7	259	87.8
NO	6	4.6	30	18.2	36	12.2
Total	131	100	164	100	295	100

Women who answered "don't know" to this question are excluded from the table.

A high percentage (87.8%) of the respondents felt that they had been kept adequately informed of their own and their baby's conditions. However, a significant discrepancy was found on this issue between the women who had been given emergency and elective caesareans ( $P=.001$ ;  $\chi^2_{1} = 11.533$ ;  $df=1$ ). Less than one in six (18.2%) of the women receiving emergency caesareans said that they were not able to find out all they wanted to know about their condition and that of their nearly born baby compared with more than one in twenty (4.6%) who said 'no' in the elective caesarean group. This is probably because, in the emergency situation, there is not enough time to adequately inform women of all that is happening.

## 2.2 Information About Treatment

Women were then asked 'Were you kept informed of the treatment you were being given?'

The overwhelming response was that women felt that they had been kept informed of their treatment. 95.7% answered "yes" to this question.

Some women said that they had not been kept informed about their treatment. For example, the things that one respondent would have liked to have been told about were:

*"how the pain killing treatments would have affected me".*

Another simply said that she would like to have been told:

*"everything".*

## 2.3 Information About the Baby's Condition

The next question was 'Do you feel that you were kept fully informed of your baby's condition?'

91.7% of women having caesareans answered "yes" to this question. Thus it appears that women overwhelmingly felt that they were kept fully informed of their baby's condition. Of the 17 women who answered "no", the vast majority (12 out of 17, 70.6%) were women who had first caesareans carried out as emergencies. Most of these women felt that

they wanted to be better informed about their baby's condition. One woman said that she would have liked to be told about the effects of the operation on her baby, for example, the after effects such as shock, anaemia and jaundice. Another said that she would have liked to have been told what risk the operation would be to her baby. Other comments related to the general condition of the baby before, during and immediately after the operation. One woman stated that her baby's condition was never discussed.

It is not the case however, that all the women who answered "no" to this question actually wanted more information. For example, one woman said:

*"I was glad not to be told the full details until the next day".*

Similarly, another implied that more information would have made her feel worse:

*"I was distressed and it would have upset me more if I knew baby was distressed".*

Another respondent expressed feelings of wanting to know more but also accepting that such information may have had a negative affect on her, she said that she would have liked to have been told about her baby's -

*"position in the womb, but perhaps this would have been disheartening".*

Therefore it appears from the results that, overall, women were satisfied with the amount of information they received from the staff in hospital and even when they say that they were not kept fully informed it does not necessarily mean that they actually wanted more information.

#### 2.4 Information Regarding Subsequent Births

The women were asked 'Have you been told what kind of birth to expect with your next pregnancy?'

About half the women having caesareans were not told what kind of birth to expect. (135 "yes", 144 "no"). There appears to be great divergence between hospitals in terms of whether or not women were given information regarding what type of birth they should expect with subsequent pregnancies.

Six out of the nine hospitals taking part in this study gave women information regarding what type of birth to expect with subsequent pregnancies.

Of the 135 women who had been given this information over half (57.0%) were told that they would probably need another caesarean. Not surprisingly almost three in five of these women (59.7%) had had previous caesareans. This advice appears to be fairly consistent amongst the different hospitals.

The respondents were then asked 'How do you feel about this? (e.g. frightened, pleased, sad, mixed, other)'.

Of the women who were told that they would probably need another caesarean for any subsequent pregnancies almost two in five (38.9%) said that they had "mixed" feelings about it. Almost one in seven (13.9%) were "pleased" with this advice. Only one in nine (11.1%) of women given this advice reported negative feelings such as "frightened", "sad", "disappointed", and "apprehensive". For women who had been told that they would be able to deliver normally in the future only two in five (40.0%) said that they were "pleased" about this. One in ten (10.0%) had "mixed" feelings about it and a further 10.0% reported other positive feelings such as "fine" and "relieved". Only one woman in the sample said that she felt "frightened" about this prospect.

#### 2.5 Women's Understanding at the Time of Birth

Women were asked 'At the time, did you understand why a caesarean section was needed?'

276 women answered "yes" to this question, that is 92.0% of women having caesareans said that they understood why their caesarean was

needed. Only 9 women (3.0%) answered "no" to this question. The remaining respondents said that they did not know or could not remember.

This result indicates that most women felt that they understood why they had been given a caesarean.

## 2.6 The Timing of the Operation

Women were asked : 'Do you think the operation was done at the right time?' The results were as follows:

Table 2.12: WHETHER WOMEN FELT THE OPERATION WAS DONE AT THE RIGHT TIME

	<i>Elective</i>		<i>Emergency</i>		<i>Both Groups</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Too Early	2	1.5	2	1.2	4	1.3
Right Time	126	96.2	111	67.3	237	80.1
Too Late	3	2.3	52	31.5	55	18.6
-----						
Total	131	100	165	100	296	100

*Women who answered "don't know" to this question are excluded from the table.*

It appears from these results that the majority (80.1%) of women felt that their operations were carried out at the right time. This is particularly true of the women who had elective caesareans where almost all women (96.2%) were satisfied that the operation was carried out at the right time. However, more dissatisfaction was detected amongst women who had emergency caesareans with almost one in three (31.5%) feeling that the operation was carried out too late.

## 3 THE BABIES

### 3.1 Weight of Babies at Birth

Mothers were asked: 'How much did your baby weigh at birth?'

The results were:

Table 2.13: BABIES WEIGHT AT BIRTH (Singletons)

Weight in grams.	Elective		Emergency		Both Groups	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1,000 - 1,499	0	0.0	2	1.2	2	0.7
1,500 - 1,999	1	0.8	5	3.1	6	2.2
2,000 - 2,499	4	3.3	12	7.6	16	5.7
2,500 - 2,999	31	25.2	23	14.6	54	19.2
3,000 - 3,499	36	29.3	50	31.6	86	30.6
3,500 - 3,999	36	29.3	38	24.1	74	26.3
4,000 - 4,499	11	8.9	20	12.7	31	11.0
4,500 - 4,999	3	2.4	8	5.1	11	3.9
5,000 - 5,499	1	0.8	0	0.0	1	0.4
-----						
TOTAL	123	100	158	100	281	100

*Women who did not answer and twin births are excluded from this table.*

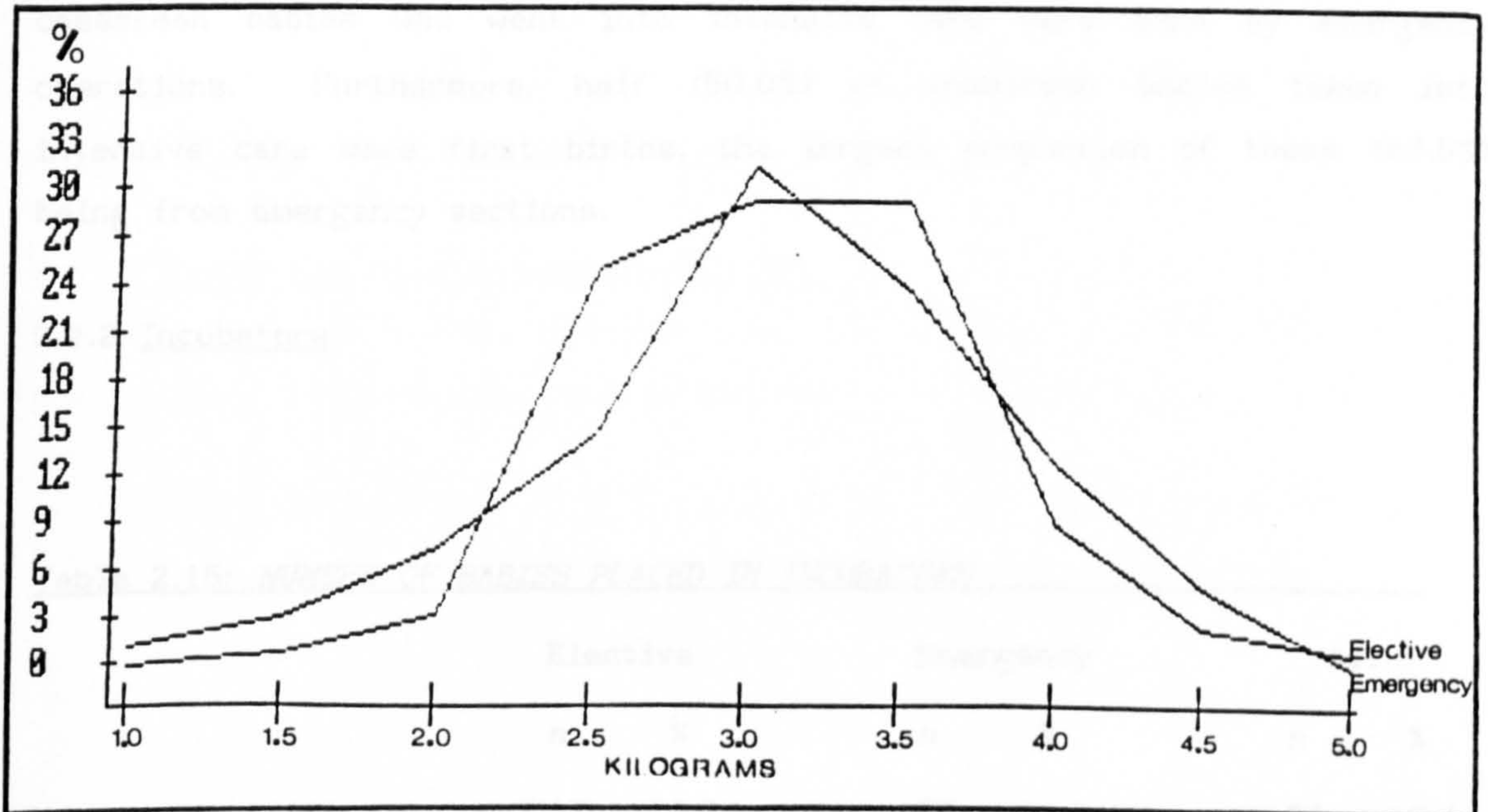
The results reveal that over three quarters (76.2%) of caesareans were performed when the baby's weight was above 2,500 grams and less than 4,000 grams. Some differences emerge in the weight of babies born by elective caesarean or emergency operations. More emergency caesarean babies weighed less than 2,500 grams at birth, almost one in eight (11.9%) as compared to one in twenty five (4.1%) of babies born by elective operations. Emergency caesarean births peaked slightly at the 3,000 gram to 3,500 gram weight range with almost one in three (31.6%) of babies being born at this weight. However, babies from emergency operations tended to span the range of birth weights whereas babies from elective caesareans peaked at the 3,000 gram to 4,000 gram range (58.6% of operations) and were more likely overall to be born within the 2,500 gram to 4,000 gram weight range where five out of six (83.8%) elective operations were performed (see Figure 5).

This may once again indicate that elective caesareans are carried out at what is perceived by the medical practitioners to be the 'ideal' size and decisions are based very much upon calculations of 'average' babies. As



with calculations of average gestation periods, average size and weight of babies may have important implications for babies who, for a number of reasons, do not fall within the average.

Figure 5: Weight of Babies at Birth



### 3.2 Intensive Care and the Use of Incubators

Women were asked: 'Was your baby taken to Intensive Care?' and 'Did your baby need to be in an incubator?'

The results were:

#### 3.2.1 Intensive Care

Table 2.14: NUMBER OF BABIES TAKEN INTO INTENSIVE CARE (IC)

	Elective		Emergency		Both Groups	
	n	%	n	%	n	%
Baby went to IC.	14	11.2	34	21.4	48	16.9
Baby didn't go to IC.	111	88.8	125	78.6	236	83.1
Total	125	100	159	100	284	100

Sixteen women who answered "don't know" are excluded from this table.

The results show that the overwhelming majority (83.1%) of babies born by caesarean section were not taken into the intensive care unit. However a significantly higher proportion of babies born by emergency section went into intensive care as compared to those born by elective operations ( $P=.05$ ;  $\chi^2_{c=1}=4.468$ ;  $df=1$ ). Thus babies born by emergency operations were twice as likely to be taken to intensive care. Almost five in seven (70.8%) of caesarean babies who went into intensive care were born by emergency operations. Furthermore, half (50.0%) of caesarean babies taken into intensive care were first births, the largest proportion of these (87.5%) being from emergency sections.

### 3.2.2 Incubators

Table 2.15: NUMBER OF BABIES PLACED IN INCUBATORS

	Elective		Emergency		All	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Needed Incubation	17	13.6	37	24.0	54	19.4
Didn't need Incubation	108	86.4	117	76.0	225	80.6
Total	125	100	154	100	279	100

*Twenty one women who answered "don't know" are excluded from this table.*

The results demonstrate that overall, babies born by caesarean section do not need to be placed in incubators with less than one in five (19.4%) needing incubation. Slightly more emergency caesarean babies were placed in incubators after birth than babies from elective caesareans, one in four (24.0%) compared to one in seven (13.6%). Of the babies who went into incubators the majority (68.5%) were from emergency operations. Thus a significant difference exists in the use of incubators by babies from emergency and elective operations ( $P=.05$ ;  $\chi^2_{c=1}=4.160$ ;  $df=1$ ).

Women who said that their babies were taken into intensive care and/or placed in an incubator were then asked how long their babies were in

intensive care and/or an incubator for.

The mode answer to this question demonstrated that most babies were kept in intensive care and/or incubators for up to and including one day. One emergency caesareans baby was kept in intensive care for 4 weeks. (For details of data see Appendix 3)

#### 4 WOMEN'S POST-OPERATIVE EXPERIENCES

##### 4.1 Do Women Who Have Caesareans Suffer?

Women were asked 'Do you consider that you suffered as a result of having a caesarean'. The results were as follows:

Table 2.16: WHETHER WOMEN HAVING CAESAREANS FEEL THAT THEY SUFFER

	Elective		Emergency		Total	
	n	%	n	%	n	%
YES	26	20.0	90	55.9	116	39.9
NO	104	80.0	71	44.1	175	60.1
-----						
Total	130	100	161	100	291	100

*Nine women who did not answer are excluded from this table.*

Three in five women (60.1%) did not feel that they suffered as a result of the caesarean operation. However a significant difference existed between women giving birth by elective sections and those having emergency operations ( $P=.001$ ;  $\chi^2_{(1)}=37.187$ ;  $df=1$ ). Four in five (80.0%) women who had elective caesareans did not feel that they suffered as a result of giving birth by caesarean. In contrast almost three in five (55.9%) of the women who received emergency caesareans felt that they *had* suffered.

Comments from women as to *why* they felt that they had suffered were divided into one general group (including women's remarks on, for example, not participating in the birth of their babies and their feelings about being separated from their babies immediately after the birth), and four

specific categories vis: the pain of the operation; losing out on a natural birth; the lengthy recovery period, and perceived problems with bonding. (See discussion of results for more details on women's responses to suffering, Chapter 14).

#### 4.1.1 Pain Expected by Women

It would appear that the pain women experience after the operation is perceived to be a prime source of suffering amongst women having caesareans. However, when asked specifically about their experience of pain, that is: 'After the caesarean section did you feel pain in the wound more or less as expected?' it does not appear that women experienced pain more than they expected. The results were:

Table 2.17: WOMEN'S EXPERIENCE OF PAIN COMPARED TO THEIR EXPECTATIONS

	Elective		Emergency		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
MORE	28	21.2	52	32.3	80	27.3
AS	77	58.3	80	49.7	157	53.6
LESS	27	20.5	29	18.0	56	19.1
TOTAL	132	100	161	100	293	100

*Seven women who did not answer are excluded from this table.*

The results show that just over half (53.6%) the women who had caesareans experienced as much pain as they had expected. Over a quarter (27.3%) had more pain, but almost one in five (19.1%) reported less pain than anticipated. Slight differences emerged in the experience of pain between women who had elective and emergency caesareans. Almost one in three (32.3%) women who had emergency operations felt more pain than they had expected compared to one in five (21.2%) women who had elective sections.

The results were then divided into those women who had experienced previous caesareans and those who had not to see if their expectations and experience of pain differed.

Table 2.18: PREVIOUS BIRTH EXPERIENCES AND EXPECTATIONS OF PAIN

	Primiparas		Previous C/S		Previous V/B		Total	
	n	%	n	%	n	%	n	%
MORE	46	34.1	13	13.4	21	34.4	80	27.3
AS	55	40.7	73	75.3	29	47.6	157	53.6
LESS	34	25.2	11	11.3	11	18.0	56	19.1
TOTAL	135	100	97	100	61	100	293	100

Seven women who did not answer are excluded from this table.

Not surprisingly the results show that three quarters (75.3%) of women with previous caesareans had as much pain as expected compared to less than half the primiparas (40.7%) and those with previous vaginal deliveries (47.6%). Over one in three women (34.4%) with previous vaginal births and a similar number of primips (34.1%) said that they experienced more pain with the caesarean than they had expected, demonstrating a significant difference in experience of pain based on whether or not women have had previous caesareans ( $P=.0005$ ;  $\chi^2_{c=1}=29.048$ ;  $df=4$ ).

#### 4.1.2 'Other' Post-Operative Feelings

Women were asked: 'What else did you feel after the operation? e.g. tired, weak, sick, depressed, other'.

The results were:

Table 2.19: POST OPERATIVE FEELINGS

	Elective n = 132		Emergency n = 168		Both Groups n = 300	
	n	%	n	%	n	%
Tired	101	76.5	151	89.9	252	84.0
Weak	67	50.8	99	58.9	166	55.3
Sick	18	13.6	34	20.2	52	17.3
Depressed	12	9.1	33	19.6	45	15.0

Percentages total more than 100 as some women indicated more than one response.

The results show that overall five out of six (84.0%) women having caesareans felt tired after the operation, over half (55.3%) felt weak. To a lesser extent women felt sick and/or depressed, one in six (17.3%) and one in seven (15.0%) respectively. However, women who have had emergency operations reported all of these feelings more than those having elective caesareans, the most startling difference being in terms of depression where over twice as many emergency caesarean women reported feeling this post-operatively, almost one in five (19.6%) compared to one in eleven (9.1%) women who had elective caesareans.

Other comments that women made regarding this question reflected mostly negative feelings such as "disorientated", "in pain", "confused", "shocked", "frustrated", "detached", "stiff" and "sore". Some reported more positive feelings, for example, "happy", "elated", "moved", "relieved", "wonderful", "excited", "pleased", "very well" and "very good". One woman said that she felt "weepy and emotional".

#### 4.2 How Soon After Birth the Mothers Saw Their Babies

Women were asked 'Did you see your baby as soon as s/he was born?' The results were as follows:

Table 2.20:

#### WHETHER MOTHERS SAW THEIR BABIES IMMEDIATELY AFTER THE BIRTH

	Elective		Emergency		All	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Saw baby	86	66.2	66	39.8	152	51.4
Didn't see baby	39	30.0	78	47.0	117	39.5
Couldn't remember	5	3.8	22	13.2	27	9.1
TOTAL	130	100	166	100	296	100

Four women who did not answer this question are excluded from the table.

The results show that over half (51.4%) the women having caesareans saw their babies as soon as they were born. However less than half (47.0%) the women who had emergency caesareans saw their babies immediately

compared to two in three (66.2%) of the elective group who did, representing a highly significant difference ( $P=.001$ ;  $\chi^2_{(2)}=22.287$ ;  $df=2$ ).

Interestingly a higher proportion of the emergency caesarean women could not remember whether or not they saw their baby as soon as it was born, over one in eight (13.2%) compared to only one in twenty-five (3.8%) of elective births who answered "can't remember" to this question. One explanation for this may be that women having emergency operations are more likely to have been given general anaesthesia and are therefore more likely to be drowsy and disorientated following the birth.

Women who answered "No/Can't remember" were further asked: 'How long did you have to wait?' and 'How did you feel about this?' 76 women replied to this question. Their answers were divided into positive, negative and neutral responses. Positive responses included feeling "fine", "okay" and "pleased". Negative responses were feeling "confused", "too ill", "nothing", "disappointed", "sad/upset" and "worried" or "anxious". Response classified as 'neutral' included women who said that they felt "resigned" and those who said that they could not remember. The results were as follows:

Table 2.21: WOMEN'S FEELINGS AT NOT SEEING THEIR BABIES IMMEDIATELY

	Elective		Emergency		Both Groups	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Positive	22	75.9	20	42.5	42	55.3
Negative	6	20.7	21	44.7	27	35.5
Neutral	1	3.4	6	12.8	7	9.2
Total	29	100	47	100	76	100

The results show that of the women who responded to this question just over half (55.3%) said that they did not mind, that is, they reported positive feelings about not seeing their babies as soon as they were born. However, some differences emerge between the elective and

emergency caesarean groups. Over three quarters (75.9%) of women who had elective caesareans who answered this question reported positive feelings compared to less than half (42.5%) of the women who had emergency operations. In contrast, almost half (44.7%) the emergency caesarean women reported negative feelings whilst only one in five (20.7%) of the elective caesarean group felt negative about not seeing their babies immediately after birth. This is possibly because of the high proportion of repeat caesarean cases in the elective category meaning that these women may be more prepared for the outcomes of operative delivery because of their previous experiences.

#### 4.3 Caesarean Sections and Breastfeeding

Mothers were asked 'Did you want to breastfeed your baby?' (See appendix 4 for tabulation of data).

The results revealed that over half (51.9%) the women who had caesarean sections said that they wanted to breastfeed. Over two in five (41.9%) said that they did not want to breastfeed their baby.

Women who said that they did not want to breastfeed were then asked why this was. The majority (73.0%) said that their decision not to breastfeed stemmed from their being "*not too keen on breastfeeding*". 11.5% said that they had "*changed their mind*" about breastfeeding and a similar number (13.1%) said that they did not want to breastfeed their baby because they "*felt too ill*". When broken down into the 'elective' and 'emergency' caesarean groups interesting differences emerge. Almost four in five (78.3%) of the women who had elective caesareans who did not want to breastfeed said that they were "*not too keen on breastfeeding*" compared to only two out of three (67.7%) of the emergency caesareans who answered "no". But, more significantly, a much higher proportion of the emergency caesarean group said that they did not want to breastfeed because they had "*changed their mind*" (21.0%) and over one in five (22.6%) said that it was because they "*felt too ill*" in contrast to 1.7% and 3.3% of the elective caesarean group respectively.

Further reasons given by women for not wanting to breastfeed were that they "*had no milk*", had "*inverted nipples*" or because the "*baby*



wouldn't take to breastfeeding". Also because they felt that breastfeeding was inconvenient, they wanted to share the responsibility for feeding, or they preferred bottle feeding. Other reasons related to previous experiences such as failure with breastfeeding and suffering with breast abscesses. One woman from each group said that she was "too sore" and two women from the emergency caesarean group said that they could not breastfeed because their babies were in the Special Care Baby Unit.

#### 4.4 Length of Stay in Hospital

Women were asked: 'How long do you expect to stay in hospital?' and 'Do you feel that this is too long/too short/about right?' The answers to this question indicated that, on average, women expected to stay in hospital for about seven days following the caesarean operation. No difference was found between those women having elective operations and those having emergency caesareans. The overwhelming response to the second part of this question was that women felt that the length of time they expected to stay in hospital was "about right" with nine out of ten (90.2%) saying this. A few women said that their time in hospital was "too long" (7.9%) and fewer said that it was "too short" (1.9%). No correlation was found between the number of days women expected to stay in hospital and whether they perceived this to be too long or too short.

Women were then asked: 'Do you expect to leave the hospital before your baby?' The vast majority of women (91.7%) said that they did not expect to leave the hospital before their babies. Only 1 in 14 (7.0%) answered "yes" to this question. The remainder did not know. Of the women who did expect to leave hospital before their babies, five out of seven (71.4%) had had emergency operations.

## Chapter Fourteen

### DISCUSSION

---

Hypothesis One stated that women who have caesareans have less satisfying experiences of childbirth and suffer more in terms of both physiological and psychological distress as a result of abdominal delivery.

The Research Question therefore, was: do women suffer as a result of caesarean section?

#### DO WOMEN SUFFER?

There is a wealth of evidence to suggest that women who have caesareans suffer more negative effects both physiologically in terms of increased rates of morbidity (Neilsen and Hökegård, 1984, p.106; Engelkes and van Roosmalen, 1992, p.64; NIH, 1981, p.268; Trowell, 1986, p.64; Tulman and Fawcett, 1991, p.341) and psychologically with emotions such as depression (MacArthur et al., 1991, p.171), anxiety (Trowell, 1986, p.64), disappointment, guilt, lower self-esteem, inadequacy and sense of failure (Cohen, 1977, p.114; Affonso and Stichler, 1980, p.468). What is more, caesarean delivered women have been found to report less satisfaction with the birth experience than those who deliver vaginally (Marut and Mercer, 1979, p.260; Cranley et al., 1983, p.10; Kearney et al., 1990, p.97).

Yet the current research found that well over half the women having caesareans do not feel that they suffer as a result of the operation. This suggests that the first hypothesis has not been proved. However, there may be a number of factors at work here. First, the women in the current study were completing their questionnaires whilst in hospital at the request of the medical staff. In this position they may not have felt that they could express dissatisfaction with their treatment or care as this could be construed as a complaint against those caring for them. As the women were still reliant on the help of others, they may have believed that it was not in their interest to suggest that

they had suffered as a result of their treatment.

Secondly the power relationship between women and their doctors is such that women may not have felt dissatisfaction, believing that their caesareans were necessary, life-saving operations, and that they had only arrived at a successful outcome (the birth of their babies) with the help, knowledge and expertise of the doctors. As such, they would not feel that they had suffered as a result of having caesarean sections.

Thirdly, women may be reluctant to say that they have suffered in childbirth, which, after all, is a natural event during which most women experience some suffering. It may be perceived as a sign of weakness to admit that you have suffered and may cast doubt on your ability to fulfil your expectations of motherhood and society's expectations of you as a woman. As such, women may not acknowledge the pain, discomfort and psychological sequelae of childbirth as 'suffering'.

#### WOMEN DO SUFFER

Despite the fact that women say they do not suffer, the comments made by women about giving birth by caesarean make it clear that many do actually suffer because of the treatment they have been given, even when they do not subjectively perceive this to be the case. Evidence suggests that women who have caesarean births suffer more negative effects, not only in terms of psychological and physical distress, but also in terms of increased maternal mortality (NIH, 1981, p.268).

#### Pain

The overwhelming majority of comments on a particular issue made by women who had caesareans related to the pain of the operation.

*"I would much prefer a normal birth as the pain you have is over. But with caesarean you seem to have quite a bit of pain and discomfort for quite a while after. Also it takes you a lot longer to get back to normal which I shall find very hard".*

*"I had a 14 hour labour and have at this stage endured a further week of pain and discomfort. I cannot sit down or stand with the baby in my arms, I have to have him reached to me and it's very frustrating".*

Women who had experienced previous vaginal deliveries felt that the pain of caesarean section was particularly worthy of comment.

*"Much less enjoyable and more painful than a natural birth".*

*"My natural labour was less painful".*

Many women felt that the post-operative pain adversely affected their ability to cope with their newborn babies. One woman said that she had suffered:

*"because of not being able to see my baby properly as I was very sore and couldn't manoeuvre the same".*

Another commented that her suffering had been caused by:

*"The pain after and inability to move and deal with my baby straight away".*

Many are shocked or surprised at the intensity of the pain experienced which could indicate a lack of information and therefore preparedness amongst women having caesareans. The fact that so many women felt that their experience of pain was worthy of note and comment indicates a substantial level of suffering amongst caesarean patients.

#### Not Being Able to Give Birth Naturally

There is evidence to suggest that caesarean mothers feel disappointment or anger at not being able to give birth naturally or being 'cheated' of a vaginal delivery (Cox and Smith, 1982, p.309). Women may not construe disappointment and sense of failure as indications of suffering but it is clear from the results of the current study that many women do suffer these emotions. Many caesarean women feel a severe sense of loss at not being able to give birth naturally. One woman who had an elective caesarean said that she felt that she had

suffered:

*"Emotionally because I wanted to do it naturally by myself with little pain relief".*

Another said that:

*"I had no worries about giving birth by caesarean but I am sad that I cannot have a normal birth".*

Comments from women who had emergency caesareans include:

*"You can't class caesarean as giving birth, I don't feel as if I have really had a baby".*

Another felt that she had:

*"lost out on being able to deliver normally".*

Even when understanding the necessity of the operation in their own case some women still felt a severe sense of loss.

*"It felt safer for me and baby at the time, although I am still upset that I was not able to see natural birth through".*

From these comments it is clear that women do suffer a sense of loss at not being able (or allowed) to give birth naturally and that many are angry and disappointed that they have not delivered vaginally, to the extent that they do not feel that they have given birth.

#### Lengthy Recovery Period

It appears that an important side-effect of caesarean birth that is not given much credence by the medical professions or women having babies, is the lengthy recovery period associated with abdominal delivery. This is probably due to a failure to perceive caesarean section as major surgery instead of simply an alternative form of childbirth. The use of language is crucial here. The fact that the procedure is called the 'caesarean section' rather than the 'caesarean operation' or

'caesarean surgery' suggests that the operation is conceptualised in a different way to other forms of surgery and this may have an effect on the way that caesarean sections are seen to affect patients compared to other forms of surgery (Oakley and Richards, 1990, p.191). Evidence from the current study supports this:

*"Caesareans should be termed as normal operations ... All along I thought a caesarean wasn't a big deal. I was told how it is done but not how you feel afterwards"*.

What this means is that the expectation of a caesarean patient from both the health care professionals and the women themselves, are akin to the expectations of women giving birth vaginally, rather than the expectations of patients undergoing major abdominal surgery. Women may therefore expect to be able to cope with the care of their newborn infant and are treated as though they ought to be able to take the main responsibility for care. This leads to feelings of disappointment and frustration when women are not able to fulfil their expectations due to the debilitating effects of major surgery. This factor is borne out by the comments from women in the current study where many felt that the lengthy recovery period following a caesarean worthy of note:

*"By the second day I was up, and doing nearly everything by the third day, which caused me stress because I couldn't quite manage because of the pain I was in. It left me feeling inadequate as a mother, and I wanted to do more"*.

*"Having given birth normally the first time, this section was certainly different and I would rather have a normal birth because you can move around a lot more soon after, where with a section moving is difficult at first"*.

*"I am satisfied my caesareans were necessary for the safety of the babies in both instances. However it must surely be the worst way to give birth as just when you need to be fit to cope with a new baby, you are coping with a major operation. I found it terribly frustrating"*.

*"I feel relieved that such intervention is possible as it does obviously save the lives of newborn babies. However it is upsetting when, for the first days or so, you have to rely on the midwives and other staff so much for the care of your newborn"*.

The fact that women do not expect to be immobilised by major surgery confirms that caesarean section is conceptualised differently from other forms of surgery. This increases women's anxiety and sense of frustration. One woman said:

*"After a trouble free pregnancy it is difficult to accept being 'invalid' and dependent on others".*

Similarly it is clear that the long recovery period following the caesarean has an adverse effect on women, especially when they have other children to think about.

*"I had hoped to recover from this birth much more quickly than last time, whereas now presumably it will be as before, but harder, thanks to a two-year old!"*

The misconception over caesarean birth points to two issues. First that women, on the whole, are unprepared for abdominal delivery and do not know what to expect, and secondly, this lack of knowledge and preparedness leads to increased suffering amongst caesarean patients.

Evidence from this study demonstrates therefore, that women do suffer as a result of caesarean sections. More specifically, they experience severe pain, lengthy recovery periods, disappointment, and a sense of loss at not giving birth vaginally. There is no reason to expect that these feelings will be short-lived as the results of other studies highlight the fact that women's feelings about their childbirth experiences may have an impact on their perceived maternal roles and ultimately, their relationships with their children (Marut and Mercer, 1979, p.260; Trowell, 1986, p.64; Tulman, 1986, p.296; Affonso and Stichler, 1978, p.468; Hillan 1992, p.163).

#### Emergency Operations and General Anaesthesia

The results of this study suggest that subjectively women do not feel that they suffer as a result of undergoing caesarean operations. However, objectively it is clear that they do. The evidence available on the after-effects of caesarean birth, together with the results of the current study, demonstrate that the two factors associated with

increased suffering amongst women are emergency rather than elective operations and the use of general anaesthesia (Cranley et al. 1983, p.10; Fawcett et al., 1992, p.442; Affonso and Stichler, 1980, p.468; Marut and Mercer, 1979, p.260; Neilsen and Hökegård, 1984, p.p4-6).

The present study found that almost three in five (56%) caesarean sections were emergency operations. Over 60% of caesareans were performed with the patient under general anaesthesia. The majority of women receiving general anaesthesia were in the 'emergency' category. These data indicate that women having caesareans are likely to suffer from their operations and the results support this. Women who have emergency operations reported negative feelings such as tiredness, weakness and sickness post-operatively more than women who had elective caesareans. Women who had emergency sections reported post-operative feelings of depression over twice as much as women who had elective caesareans. There are a number of possible explanations for these findings.

#### The Unexpected Caesarean Birth

The results of the current study are consistent with a wealth of evidence demonstrating that women who have emergency caesareans have less positive perceptions of the delivery than those who have elective operations (Cranley et al., 1983, p.10; Fawcett et al., 1992, p.442). This evidence suggests that the unexpected nature of the unplanned caesarean delivery influences women's feelings about the birth and may lead to increased suffering. This is probably because the emergency caesarean patient will usually have expected a normal delivery. Also in the emergency situation there may not have been time for the medical staff to explain all that is happening to the woman and keep her fully informed. Evidence suggests that this lack of time means that women can not grasp the significance of all that is happening to them and do not therefore adjust or come to terms with the procedure appropriately (Affonso and Stichler, 1980, p.468; Fawcett, 1981, p.372; Marut and Mercer, 1979, p.260).

The results of the current study confirm that women having emergency operations are not prepared, and are not fully informed about their treatment or the procedure for the operation. Nearly four times as



many women having emergency caesareans felt that they were not kept fully informed of their condition and that of their about-to-be born baby compared to women having elective operations.

*"Obviously because I had an emergency caesarean, the after-effects were not known. Presumably these are fully discussed with a planned caesarean. I felt unable to move or cuddle baby, because I was weak, tired and upset. I felt quite ill and in pain".*

It is clear that women who have elective caesareans do not suffer as much:

*"Being an elective section, I found I was much better prepared physically and mentally than my first section. Recovery from an elective section was speedier and not as traumatic to both myself and baby".*

Women who had emergency operations however, were not so prepared. One woman said:

*"I knew nothing about a caesarean birth and there wasn't enough time to explain the procedure".*

Others suggested that women need to be better prepared for the possibility of caesarean birth:

*"I think that much more should be taught about caesareans at antenatal classes to prepare women for the after effects of a caesarean as it seems commonplace nowadays".*

*"I think all the information and advice you can be given by staff, doctors etc. helps immensely with both the operation and what the after-effects will be. This being so, there would be no great shocks".*

*"It would have been better if I was more prepared for it".*

What is clear from the results of the present research and evidence from previous studies is that lack of mental and physical preparation for abdominal delivery leads to increased psychological distress and physical morbidity (Affonso and Stichler, 1980, p.468; Neilsen and

Hökegård, 1984, pp.4-6; Moldin et al., 1984, p.7). It is therefore feasible to suggest that the unplanned and unexpected nature of emergency caesarean sections lead to increased suffering amongst women.

#### Participation in the Birth

It appears that being awake for a caesarean operation is analogous to participating in delivery for many women. Thus women who have elective operations using regional anaesthesia do not suffer as much as those having emergency sections under general anaesthetic.

*"I found the caesarean section to be less of an ordeal than I'd anticipated. It avoided a long, hard labour which may have ended as a section in any case. Spinal anaesthesia has the beauty of both worlds in that you avoid labour pains and are fully alert during the operation".*

*"The epidural was absolutely brilliant because I could feel him being born so I felt I had participated".*

*"My first section was done under a general anaesthetic and the second under spinal. I felt so much better and brighter in myself after the spinal. I could still feel involved in the birth, have my partner present and see my baby as soon as she was born".*

*"I am pleased that I was able to have this operation under epidural rather than a general anaesthetic. Thus allowing me to see the baby earlier and be part of the birth process".*

If, as the evidence suggests, participation in the delivery of the baby is a critical element in perceptions of childbirth (Sargent and Stark, 1987, p.1273), this means that the over-use of general anaesthesia for caesarean section is actively denying women the ability to feel as though they have participated in the birth of their infants and may therefore lead to feelings of disappointment. The findings of the current study are consistent with this view. One respondent said:

*"Although I understand that the well-being of my baby was of paramount importance, I feel very disappointed that I was not awake for the birth".*

Another commented:

*"A caesarean section was queried throughout my pregnancy. An X-ray of my pelvis was taken as my pelvis was small. I feel I should have had a planned section and if I had I would have had an epidural. Instead I was made to go through full labour and then rushed to theatre for a section. My husband and I feel that we have both missed out on the birth of our son".*

What is clear is that the needs of women are not being taken into account when decisions are made about anaesthesia for caesarean operations. Rather, decisions are being based on consultant preference and/or policy, use of available resources and out-dated practices which are denying women a fulfilling start to motherhood and may have long-term detrimental effects on their relationships with their children.

#### Missing Out on the First Moments After the Birth

Similarly, it appears that women who have general anaesthesia for their caesareans miss out on the first minutes, and occasionally hours, after the birth of their babies. This is a problem because not only does it affect the women's psychological state, but may have a detrimental effect on important aspects of mother/child interaction such as bonding and breastfeeding. Women who have spinal or epidural anaesthesia do not suffer in this way.

*"Everyone was very helpful, telling me what was going on. I felt very secure about being awake. It was a lot easier after the baby was born. Epidurals are a lot better than a General as you don't seem to be in much pain. My partner was able to be there which is a very good thing as they also know what's happening. The one big plus about epidurals is that you see your baby straight away which for me was the most emotional thing that I have ever encountered".*

*"It's much better if you stay awake, there's no more pain and you get to see your baby straight away".*

However, women who are asleep when their babies are delivered miss out on those first few minutes. This may not be very important to hospital staff in terms of the daily management of business but is very important to the women concerned.

*"This is the second time by caesarean. The first was by*

*general anaesthetic. Last time I felt cheated that I missed so much and did not see my baby properly until the next day. This time by spinal block was wonderful, we both saw him straight away and did not miss anything".*

*"I found the epidural better as you can see baby straight away. The first time [under general anaesthetic] I lost that bond with the baby, I didn't feel he was mine".*

*"With having a general, I feel I missed out on the first moments".*

One woman summed up her feelings very succinctly:

*"One hour recovering from anaesthetic, precious moments lost forever".*

What this points to is the differing perceptions of what the experience of childbirth should be. In Chapter Nine I suggested that there is a conflict between lay and professional views on childbirth, the results of this study are consistent with this contention and the results of previous studies (Graham and Oakley, 1981, pp.54-5; Sargent and Stark, 1987, p.1272). A successful outcome for the professionals may mean the birth of a healthy baby. Yet whilst this is also important for women, success in childbirth may mean more in terms of a personally satisfying experience which leads to a sense of accomplishment and not to a sense of failure and loss of control. Performing caesareans under general anaesthesia is denying women the ability to participate in the delivery of their children and removing them, mentally if not physically, from the experience of childbirth.

#### Separation of Mother and Baby After Birth

Evidence shows that many women who deliver by caesarean are separated from their infants immediately after birth and that this early separation can have a significant impact on the subsequent relationship between mother and child (NIH, 1981, p.420; Huntingford, 1985, p.120; Hillan, 1992, p.163).

The results of the current study demonstrate that over half the women having caesareans saw their baby as soon as it is born. However an

important variable affecting whether women were separated from their babies following delivery was whether or not they had emergency operations. More than two in three (66.2%) women who had elective caesareans saw their babies immediately whereas less than two in five (39.8%) of the women who had emergency caesareans did.

Interestingly almost one in seven emergency caesarean women (13.2%) could not remember whether or not they saw their baby as soon as it was born, presumably because of the effects of general anaesthesia. This finding is consistent with the results of previous studies which suggest that women experience 'missing pieces', that is, they are unable to recall important episodes of the birth and that this lack of recollection is responsible for negative feelings towards the experience of delivery (Affonso, 1977, in Sargent and Stark, 1987, p. 1272).

Another worrying fact about emergency caesareans is the practice of routinely taking babies into intensive care units regardless of medical necessity or the condition of the child at birth. Almost five out of seven (70.7%) caesarean babies who were taken to intensive care were from emergency operations. This will inevitably have an effect on the mother's experience of the birth and, once again, points to hospital practice based on routine policy and the need for services to be seen to be over-used to be deemed efficient, rather than maternity services based on the needs of women and what is best for them and their babies.

Similarly, it seems that women having emergency operations are more likely to leave hospital before their babies. Although the vast majority of women did not expect to leave hospital before their babies were discharged, of those who did expect to, five out of seven (71.4%) had emergency caesareans.

Given the evidence demonstrating that early and continued contact between mother and child is important for the development of the relationship between the two, women who have caesareans, and in particular those who have emergency operations, may suffer adverse effects on their relationships with their children.

### Bonding

Unequivocal evidence linking early contact between mother and child post partum with successful bonding has been available for over a decade (Klaus and Kennel, 1982, p.56). The results of the current study demonstrating the frequent separation of mother and baby following emergency caesarean sections bring into question such routine practices.

Many women who have caesareans felt that being separated from their babies immediately after the birth had a deleterious effect on their ability to bond appropriately. This is particularly the case for women who had experienced emergency caesareans probably because it is this group of women who were more likely to have been given general anaesthetic and to have delivered babies who, for a variety of reasons, were taken to intensive care units following the birth. What this means is that women are suffering as a result of emergency caesarean operations in terms of missing out on the first precious moments with their babies, and also because of the effect that this separation will have on their relationships with their children. The implication here is that bonding between mother and child following an emergency caesarean is being put in jeopardy. Women in the current study were aware of this possibility:

*"The initial bonding feelings between Mum and baby seem to have taken longer to take place".*

And:

*"I feel that caesarean takes away the vital importance of the bonding between mother and baby in the first two days".*

Many women accepted the necessity of the operation but were still concerned over the effects on their bonding with their baby.

*"I feel it was necessary for the health of my baby, but I feel I missed those precious first moments of life. I also feel that having a caesarean limits the care you can give your baby".*

The experience of one woman appropriately sums up the feelings of many regarding those first important minutes after the birth:

*"The first caesarean I had was in '86. After 12 hours I had only dilated 3cm. I had a general anaesthetic which meant I didn't see my baby and my visitors could tell me what she looked like. I was very upset by this so they brought me her to look at during the night. It took me a few months to form a loving bond. This time I feel very different as I saw baby immediately the bond has been there from the first moment".*

These comments highlight the fact that women perceive the first few minutes after the birth to be very important in terms of their feelings towards, and relationships with their newborn babies.

The current study has shown that adverse effects on bonding are likely to apply more to women having emergency operations than those having elective caesareans. This is because emergency caesarean women are less likely to see their babies immediately after birth and, an associated point, their babies are more likely to be taken into intensive care units. Of the babies from caesarean births who were taken to intensive care and placed in incubators, the vast majority were from emergency sections. This will inevitably have an effect on the mother's experience of the birth and her ability to bond appropriately with her child.

What is worrying about this evidence is that the reasoning behind the immediate separation of mother and child, as well as the rationale for emergency operations and the use of general anaesthesia are not always based on medical necessity and therefore women's relationships with their children, not to mention the long-term development of those children, may be being put in jeopardy for such extraneous rationale as hospital/consultant preference and policy; the need for services to be seen to be fully utilised; hospital/medical staff convenience and fear of litigation.

#### Breastfeeding

The evidence on the relationship between caesarean birth and breastfeeding is inconclusive, but some studies have shown that women

who have caesareans are less likely to breastfeed than those who deliver vaginally (Marut and Mercer, 1979, p.260; Janke, 1988, p.159). More specifically, it has been suggested that women who have caesareans under general anaesthesia are less likely to breastfeed than those whose operations are performed under regional anaesthetic (Morgan et al., 1984, p.329). The results of the current study support this. Of the women who said that they did not want to breastfeed their babies, a higher proportion of women who had had emergency operations said that this was because they had "*changed their mind*". Obviously it cannot be deduced from these data whether the women had changed their minds as a result of the operation or for some other reason. But, significantly, a further one in five (22.6%) emergency caesarean women said that they did not want to breastfeed because they "*felt too ill*" compared to only one in thirty (3.3%) of women having elective operations who gave this as a reason for not breastfeeding their babies.

The results of the current study show that it is the women who have emergency caesareans who are more likely to have been given general anaesthesia and who feel that this has a deleterious effect on their experience of childbirth. It is possible therefore to deduce that general anaesthesia and the accompanying feelings of unwellness may have an effect on women's decisions regarding whether or not to breastfeed their babies. The recognition of the importance of breastmilk has led to the recommendation that all babies should be exclusively breastfed for the first four to six months (Royal College of Midwives, 1991). Not only because breastfeeding is best for the baby but also because it helps the uterus to return to its normal size more quickly. Yet the routine separation of mother and baby following emergency caesarean operations in many cases, coupled with the pain, discomfort, drowsiness and often feelings of sickness following general anaesthesia mean that many emergency caesarean women are either being denied a successful start to breastfeeding or are actively turning away from breastfeeding as a choice because of the way they are feeling as a result of the operation.

#### Having a Partner/Birth Companion Present

Many studies have shown that women express greater satisfaction with birth, including caesarean section, when their partner or friend has



been present for the delivery (Cranley et al., 1983, p.10; Marut and Mercer, 1979, p.260). The current study has demonstrated that the benefits to women of having a birth companion are immeasurable. Not only can they offer support and comfort at a personal level, they can act as advocate for the woman and fill in any 'missing pieces' about the birth.

*"It was nice to know that my husband was there to see the birth and that I was able to talk to him right through the operation".*

*"It was wonderful to be able to have my husband with me in theatre and to be talked through the whole thing - wouldn't have missed it for anything".*

These comments are from women who had their caesareans under regional anaesthesia. The benefits, therefore to women having their caesareans under general anaesthetic are obvious. Their friend/partner can support them and explain what happened during delivery, which will reduce the woman's feelings of having missed out on the birth. However, the results of the current study have demonstrated that it is precisely these women who are more likely to be denied the opportunity to have a friend or partner present and are thereby denied the benefits of this support.

Just over half the women having caesareans had a friend or partner with them during the operation. This was particularly the case for women having elective operations where two out of three women had their friend/partner present. However, less than half the women having emergency operations were accompanied during the operation. Whether or not a friend or partner is allowed into the operating theatre is, more often than not, dependent on the preference of the doctor attending the birth. The findings of the current study are consistent with results from the survey of consultants' views on caesarean section which found that just under half of consultants said that friends/partners are invited into the theatre for caesarean births and a similar number said that they are 'sometimes' invited. Those consultants who answered that they sometimes invited the woman's friend/partner to be present for the operation were asked what the decision depended upon. Of those

consultants who do place restrictions on patient support during the operation, the use of a spinal or epidural anaesthetic was by far the most common precondition. One consultant said:

*"I always invite the husband if we are using an epidural but would not usually for general anaesthetic".*

Another said that the friend/partner would be invited to attend:

*"unless there were contra-indications such as a general anaesthetic".*

Others were not specific about type of anaesthetic used but referred instead to whether the operation was emergency or elective. One doctor said he would allow the observer into the theatre:

*"if it was the woman's wish and it was not an emergency caesarean for foetal distress".*

Another summed-up the feelings of many with two pre-conditions for the friend/partner's attendance. These were that:

*"the caesarean was elective and under epidural"* (Francome et al., 1993, pp.136-7).

It appears therefore that the preferences of the consultant attending the birth have an impact on whether or not friends or partners are permitted into the theatre during the birth. From the results of the current survey of women's experiences of caesarean section it is clear that women are very much aware of this fact. The women who did not have a friend/partner present for the birth were asked why not. The overwhelming majority of reasons given by women were to do with hospital/doctor policy regarding caesarean sections or the fact that the emergency situation of the operation meant either that partners were not allowed into the operating theatre, or they could not have got there on time even if they were allowed in. When asked why they did not have a partner or friend present for the birth the women said for example:

*"Doctor didn't approve of husbands being present";*  
*"never offered chance due to general anaesthetic";*  
*"they wouldn't let him in the room, he stayed outside";*  
*"because not allowed to, with having general";*  
*"due to general anaesthetic",*

and simply:

*"not allowed".*

Fewer of the reasons given by women for not having someone present for the birth related to the partner themselves, for example they were too scared/nervous; they could not get time off of work or they were unwell; or because the friend/partner did not want to be there. The women said:

*"he didn't feel he could have coped";*  
*"my partner was too scared";*  
*"he didn't wish to be there";*  
*"my husband is squeemish",*

and

*"husband too nervous".*

A small minority of women said that they did not want anyone to be present. One woman stated that the reason her partner was not with her during the birth was because: *"I didn't want anyone there".*

Some women did not say why their partner or friend was not present, a few added comments such as:

*"husband stayed outside waiting"*

and

*"waited outside theatre".*

One woman stated:

*"my husband couldn't get time off work" and therefore could not be at the birth.*

When asked why her partner was not present for the birth one woman described the difficulty he had experienced in getting access to the room she was in:

*"My husband waited outside, had an argument with staff in order to be allowed into the recovery room for my waking up".*

What emerged from the results of this study is that the majority of women would prefer to have their friend/partner with them during the birth and it is the organisation of hospital services which is preventing this. If the main reason for not allowing partners into the operating theatre is because the operation is being performed under general anaesthetic, then surely this is another indication that women should be given epidural or spinal block anaesthetic for caesarean section wherever possible.

In conclusion, I would state categorically that women who have caesareans do suffer despite their subjective perceptions of their experiences which suggest that they do not feel that they have suffered. The evidence produced by this study has clearly proven the first hypothesis that caesarean birth denies women the opportunity of having a satisfying experience of childbirth and increases their suffering.

The results have demonstrated that women who have caesareans suffer. First, in terms of increased pain, lengthy recovery period, lack of ambulation and often lack support and understanding as caesarean delivery is treated as 'childbirth' and not major surgery. Secondly, as a higher proportion of caesareans are emergency operations and not elective, and the majority are performed with the patient under general anaesthetic, this increases suffering for the majority of women being delivered by section. Problems associated with emergency operations

include lack of information and no time to prepare physically or mentally for surgical delivery, shock, disappointment, depression and anger at not being able to deliver vaginally. Suffering caused to caesarean patients by the use of general anaesthesia includes not experiencing the birth of their babies, feeling as though they have not participated in the birth, being separated from the baby or too drowsy to acknowledge the baby in the first minutes after birth and not having a friend or partner present for the delivery, all of which can and does have deleterious effects on important components of the mother/child relationship such as bonding and breastfeeding which may have repercussions for the rest of their lives.

#### EXPECTATIONS AND PREPARATION FOR ABDOMINAL DELIVERY

The evidence presented in this study from the results of the current research and previous works demonstrates clearly that women suffer as a result of caesarean section. They suffer psychologically in terms of increased depression, anxiety, disappointment, anger and feelings of failure. Physiologically they suffer with increased experience of pain, lack of ambulation, lengthy recovery periods, increases in morbidity and higher rates of maternal mortality. What is more, women who have emergency operations and/or general anaesthesia for their sections suffer all of these effects more than those having elective caesareans and/or regional anaesthesia.

When asked about suffering in general, more women who have had emergency operations say that they felt they have suffered. When asked more specifically about the amount of pain they experience in comparison to the pain they had expected, once again, it is the emergency caesarean women who reported feeling more pain than expected. This can be explained in a number of ways. This group of women may be more physically exhausted as they are more likely to have had a trial of labour prior to the caesarean. They are also more likely to have been given general anaesthesia for their operations and will therefore suffer the after-effects of this. It may also be because women having emergency operations are, on the whole, unprepared for operative birth in terms of both the information that is given to them prenatally and

during the operation and also because they generally do not expect to have a caesarean birth. They therefore have not had time to come to terms with abdominal birth and thus prepare themselves mentally and physically.

It is astonishing that women are so surprised by the pain of a caesarean section which, after all, is a major abdominal surgical operation. But not so surprising when considering the prevailing idea that the caesarean is a painless way to give birth, that women who have caesareans have somehow taken the 'soft' option and not had to suffer the intensity of the pain of labour. One woman said:

*"It is annoying that other Mums think you've had an easy time without the labour etc., but it is really hard getting yourself pulled together afterwards".*

It appears that there is a general lack of understanding amongst women about exactly what caesarean birth entails and the length of time that it can take to recover. Many women who have caesareans feel angry about this lack of information and the response that they get from other women.

*"Myself and other women who have had babies by caesareans feel very annoyed when people who had normal deliveries think we were lucky and had an 'easy way out' as recovery is very long and painful. It is many months before you feel well again".*

The results of the current study demonstrate that women who have second or third caesareans are more prepared for abdominal delivery and therefore do not experience such severe after-effects. For example, they do not experience as much pain. One woman who had experienced a previous caesarean found that the second operation was not as painful as the first:

*"The first section was very painful and I was shocked at the severity of it. With the second one I was a bit wary because I knew of the pain I was in with the first. But it was nowhere near as bad".*

Others find that a second or third caesarean is less traumatic:

*"With the first caesarean there was great disappointment and feeling that I had suffered a labour for nothing. This time I was fairly optimistic about delivering normally but knew there was the possibility of a second caesarean. Therefore I don't feel so let down this time".*

This may indicate that a degree of preparation and knowing what to expect decreases negative physiological sequelae.

Another explanation for emergency caesarean patients experiencing more suffering could be that as emergency operations are more often carried out under general anaesthetic, the women are more likely to have an increased reaction post-operatively. The use of general anaesthesia denies women the opportunity to feel as though they have participated in the delivery of their babies, often their partners/birth companions are not allowed to be present for the birth, they are frequently separated from their babies following the birth and miss out on the first moments after delivery. The fact that emergency caesarean women experience these feelings more than women having elective operations is further evidence that lack of preparation and thwarted expectations increase negative after-effects of caesarean birth.

An important finding of the current study was that almost half of elective caesareans were also performed with the woman not awake even when, presumably, the woman would have had an element of control over what happens to her and there is no conceivable reason why she should not be awake.

This position could be explained in a number of ways. It may be hospital policy which dictates whether or not a woman is allowed to be awake during the operation. Alternatively the high degree of elective caesareans performed under general anaesthetic may be due to women's reluctance to be awake during major surgery. If this is the case it is another reflection of women's lack of preparation for operative birth and lack of information about what will happen to them, how it will be done and how they may feel.

*"When I had my first caesarean I was frightened to be awake but now that I know what it was like being awake with the second, I would have loved to have been awake the first*

*time. It was a great feeling seeing the baby straight away".*

It is obvious from the comments made by women in this study that being awake during the delivery of their babies has many advantages.

*"I found a planned section with epidural a far more pleasant and positive experience than my first section (which was as emergency with general anaesthetic after a very long labour). My first section was a distressing and frightening experience and one which I felt completely unprepared for".*

What this points to is the fact that most women are completely unprepared for abdominal delivery and it is this lack of preparation that increases negative emotional and physical sequelae to caesarean section.

*"After having my first baby by emergency caesarean section under general anaesthetic I felt depressed and upset as I felt I had missed out a lot by not being awake during the birth. This time I had a much more pleasurable experience due to the fact that I was awake to see what was going on, I was able to see my baby straight after he was born and my husband was allowed in this time".*

If the number of elective operations performed under general anaesthesia are partly the result of women's preferences, it is clear that this preference is based on lack of knowledge and information. If women were made aware of the benefits of regional anaesthesia for caesarean section, they probably would not opt for general. What this means is that women must be accurately informed if they are to make appropriate decisions about their care and improve the outcome in terms of reducing negative psychological and physiological effects.

#### CONFLICT IN MATERNITY SERVICES - REVISITED

In Chapter Nine I argued that there is a conflict in maternity services between lay and professional perceptions of childbirth. In this chapter, I have suggested that the conflict between women and obstetricians has led to women suffering as a result of childbirth



practice, namely caesarean section. Yet the results of the present research into women's experiences of caesarean birth have shown that subjectively, women do not feel as though they suffer as a result of their treatment in hospital. I further suggested that this result may, in part, be due to a design fault in the survey whereby women were asked to complete questionnaires whilst still under the care of hospital staff which may have had an effect on the comments that they felt able to make. However, I believe that there are much more subtle forces at work here. Women say that they do not suffer as a result of caesarean section because they do not *believe* that they suffer. Evidence from the current research and other studies has demonstrated categorically that women having caesareans do suffer. The important question is: why do women not perceive that they suffer as a result of abdominal delivery?

The answer to this question is that women believe their operations to be necessary, life-saving procedures without which they would not have achieved the birth of their babies. In a situation where women are being told that a caesarean is in the best interest of their about-to-be-born babies, few would argue, object or complain. What is crucial here, is the relationship between women and their medical attendants.

Mavis Kirkham, in her research, observed that many women in labour frequently apologise for themselves, their appearance, their behaviour, their requests, their *being there*, even during routine care. The implication here is that women in labour see themselves as rather a nuisance, possibly not behaving well and certainly not having any automatic right to the attention of the medical practitioners (Kirkham, 1986, p.44). This could be one of the reasons why many women do not complain about interventionist techniques such as caesarean section, or feel that they have any right to question the superior knowledge of the obstetricians. Rather, women are more likely to feel grateful for the expertise, skill and authority offered to them and obliged to the doctors for their time, attention and trouble in helping them (the women) out of a difficult situation. The results of the current study support this.

*"I lost a lot of blood and am only too grateful the*

*Consultant and his team for successfully completing my operation".*

*"I was overwhelmed with gratitude when they delivered our baby".*

*"As soon as they said you will have to have a section, I became very upset and cried a lot, even though I thoroughly understood the circumstances and knew it was for the very best for my baby and me. But as soon as I came round and saw my husband with my beautiful son I was glad it was all over and glad I had a section".*

*"It was unavoidable and in the best interests of the baby. Whilst it will take a while to recover it is comforting to know the baby is now safe and well".*

It appears that women in labour are encouraged to feel extremely grateful for the treatment and attention they are given by the highly trained professionals. Thus when women do not receive the care or information they would like, few protest. Although the respondents in the current study expressed a high level of satisfaction with the amount of information they received about their condition, it appears that even when women are not given enough information they tend to accept what little they have been given and adapt to make the best of the information, conditions and choices available to them. They do not express dissatisfaction when they do not receive the information they require (Shapiro et al., 1983, p.139). It is more common for women to react in a way that allows them to view the situation from a different angle, to explain the lack of information and choice in terms of inadequate facilities or staff shortages. This prevents women getting angry about their situation, hence they do not harbour grievances and are able to maintain good relationships with the health care professionals (Cartwright, 1979, p.163). Similarly, respondents in the present study would not say that they had suffered as a result of the caesarean operation. They were grateful that the procedure had been made available to them.

Many women would not dream of questioning a doctor's authority particularly when they are told that the treatment they are about to receive is the best interest of their soon-to-be-born baby.

Furthermore, few women would be willing to take responsibility for their decisions when the impression they get from the medical practitioners is that they will 'wash their hands' of them if they do not comply with medical advice. It has been suggested that the authority of the medical professionals and the language used by them puts women in a vulnerable position in that they have to take the advice of the doctors or face the consequences of their decisions (Oakley and Richards, 1990, p.185).

With caesarean section, the fact that an operation is about to be performed suggests to women as patients that a medical decision has been taken on the basis of 'need' alone. Therefore women who may question the use of other interventions such as induction, for example, as they suspect it could be used for reasons of convenience rather than medical need, will accept caesarean section without resistance (Oakley and Richards, 1990, p.190).

It is not surprising therefore that women assume an apologetic role given the intrinsically inferior and vulnerable position they are in first, because they are in labour, and secondly, because they are placed in hospital as a patient. Given the imbalance of power between women and doctors, it is questionable that even if women were adequately informed about their condition and treatment they would be in a position to assert their wishes and preferences.

It has been suggested that the lack of research being carried out into the effects of caesarean section is the result of a shared view amongst patients and professionals that the operation is 'essential' and that there is little relevance in ascertaining the feelings of those who have undergone a 'lifesaving' procedure (Oakley, 1983, p.99).

The current study aims, in part, to address this deficit. However, the results support the view that women see the caesarean operation as entirely necessary and are reluctant to question its use. Not only do women feel that they have not suffered as a result of the operation, they also express a great deal of satisfaction with the amount of information they receive about their condition, their babies' health and the treatment they have received. Further, the majority believe

that they understand why their caesareans were necessary, that the operations were performed at the right time and that the length of time that they are required to stay in hospital is 'about right'. What is even more surprising is that of the women who did not see their babies immediately after delivery, only one in three reported negative feelings such as "sad/upset", "worried" or "anxious". The majority expressed positive or neutral emotions such as "pleased", "fine" and "resigned". The lack of questioning or concern over the necessity for the operation and related procedures such as routine separation between mother and child following the birth amongst women having caesareans points to the fact that the procedure is viewed as an essential medical intervention that would not be used unless completely necessary.

Unfortunately, women's faith in the medical profession may be misguided. The results of a survey of consultants' attitudes about caesarean section found that almost half the doctors in Britain say that caesarean rates are rising because of fear of litigation (Francome et al., 1993, p.130), thereby demonstrating that factors other than medical necessity are affecting decisions on whether or not to perform a caesarean. In Chapter Eleven, I outlined the various non-medical determinants which affect caesarean section rates, including consultant preference, medical convenience and financial considerations. Such an anomaly between women's perceptions of the necessity of caesarean section and doctors' rationales for performing the operation highlight a clear conflict between the two.

Women's faith in the medical profession must in some cases be misplaced because they are often not given all the information they need to make informed choices. Women feel they are kept sufficiently informed because they believe what they are told. If they are not given information, it is because it is not necessary for them. Clearly doctors are not going to tell women that they need a caesarean in order to cover the obstetrician against litigation. When this occurs it represents an abuse of power by the medical profession who know that women are not in a position to question or contend their authority. Women do not know that decisions are being made about their bodies on the basis of anything other than medical need.

The results of the current study have demonstrated clearly that women do suffer as a result of caesarean section. Not only in terms of physical and emotional sequelae, but also in terms of the abuse of power by the medical profession in not giving women the appropriate information that they need to make informed decisions regarding their care. In the following chapter I discuss what can be done to overcome these problems and make recommendations on how maternity services can be improved to ensure a better outcome, not just for women, but also their babies, families and hospital staff, including obstetricians.

## Chapter Fifteen

### CONCLUSIONS AND RECOMMENDATIONS

---

Hypothesis Two stated that maternity services can be improved with regard to caesarean section, to ensure a better outcome for women.

The Research Question was therefore: what can be done to improve the outcome for women of childbirth in general, and caesarean section in particular?

The evidence presented throughout this study has shown that rates of caesarean section are higher than can be justified in terms of infant or maternal outcomes. What is more, women suffer as a result of the number of operations being performed. This chapter concludes the study with summaries of the main findings of the research together with recommendations on how maternity care relating to caesarean section can be improved to ensure a better outcome, not only for women, but also their children, their families and hospital staff.

RECOMMENDATION No. 1: A MORE SELECTIVE USE OF CAESAREAN SECTION (Every caesarean a necessary caesarean).

Rates of caesarean section have been rising in all countries for which data are available. The latest calculation puts the caesarean rate in Britain at almost 13% (Savage and Francome, 1993, p.494). Although the rates for some countries appear to be stabilising<sup>1</sup>, there is evidence to suggest that there is no justification for a caesarean rate above 6% (Francome and Huntingford, 1980, p.361).

<sup>1</sup> In the United States the caesarean rate increased only 0.6% from 1986 to 24.7% in 1988 (Sanchez-Ramos et al., 1990, p.199). However, the rate of increase in Britain shows no signs of slowing down as it has rose 0.2% each year from 1985 to 1989, and 0.3% per year from 1989 to 1992 (Francome et al., 1993, p.1).

High caesarean section rates cannot be justified in terms of reductions in perinatal and neonatal mortality (O'Driscoll and Foley, 1983, p.4; NIH., 1981, p.175) and have led to iatrogenic morbidity in babies born by section (Guillemin, 1981, p.17). Effects on women having caesareans have been even more severe and include increased risk of fatality (NIH., 1981, p.269). The results of the current study have shown that women who have caesarean deliveries report increased pain, immobility and lengthy recovery periods. They experience disappointment at not being able to (or allowed to) give birth naturally. They feel shock, anger and increased psychological distress. They miss out on participating in the delivery of their babies and often miss the first minutes following the birth. Frequently, caesarean mothers are routinely separated from their babies after delivery and experience deleterious effects on bonding and breastfeeding as a result of giving birth by caesarean. What this means is that not only are women being denied positive experiences of childbirth but caesarean section may actually have long-term deleterious effects on the mother-child relationship and therefore the subsequent development of caesarean children.

The difference in caesarean rates between countries, regions, hospitals and individual consultants, cannot be accounted for in terms of biological or medical differences in the populations of women served, and point to differences in practice rather than medical need. Differences in caesarean rates appear to rest upon extraneous variables including socio-economic factors; consultant's preference; outdated practices such as 'repeat caesareans'; hospital/doctor convenience; staff shortages; increased use of technology, especially electronic foetal monitoring, and the fear of litigation.

The ethical considerations associated with caesarean birth are not specific to this procedure but follow established patterns governing the relationship between health care providers and their patients. In 1981 the NIH Consensus Development Statement on Caesarean Section specified that the ethical guidelines should be:

*"A commitment to giving patients' interests priority over their own and acknowledging the right of patients to make*

*informed decisions regarding their own bodies"* (NIH, 1981, p.23).

It is astonishing to see that thirteen years on, such a statement still needs to be enforced. Caesarean sections continue to be performed for reasons other than medical necessity. Fear of litigation and financial factors being major considerations demonstrating that doctors' interests are given priority over those of the patient.

As the rationale for caesarean section is clearly not always based on medical necessity, it means that women's relationships with their children and ultimately, the long-term development of caesarean children may be put in jeopardy for such extraneous reasons as hospital/consultant preference and policy, the need for services to be seen to be fully utilised, hospital/medical staff convenience, outdated practices such as repeat caesareans, and, not least of all, fear of litigation.

Most of these extraneous factors can be overcome by education, peer pressure and/or social policy. Variables relating to doctor/hospital policy and preference will only change as a result of public and professional pressure highlighting the negative side-effects of caesarean birth and the lack of evidence to support higher rates of surgical intervention. There is some indication that this is beginning to happen with reduction in the number of operations performed for indications such as repeat caesareans (Paterson and Saunders, 1991, p.819; Francome et al., 1993, pp.123-4).

The problem of caesareans being performed because of staff shortages and over-reliance on more junior doctors will not be solved until money is made available to staff labour wards appropriately and not overstretch existing staff. Such variables are intrinsically linked to governmental and Hospital Trust policies and priorities. Unfortunately, in times of economic recession solutions which appear to require increased spending, for example on staffing and training, are not favourably received. Yet caesareans are more expensive than vaginal deliveries. Recent calculations have demonstrated that a reduction of only 1% in the caesarean section rate in Britain would



save the health service £7,000,000 a year (Savage and Francome, 1993, p.495). In times of scarce resourcing for health services it must surely be inappropriate to channel money into interventionist techniques such the caesarean section which are of questionable value.

There is a wealth of evidence to suggest that VBAC is a safe and preferable alternative to repeat caesareans for most women (Paul et al, 1985, p.299; Molloy et al, 1987, p.1645; Nielson et al., 1989, p.569; Paterson and Saunders, 1991, p.819; Taffel et al., 1992, p.22; Savage and Francome, 1993, p.494).

Some change in medical attitude, and thus practice, is also evident (Francome et al., 1993, p.124) but there is still some reluctance to change on the part of many obstetricians. Even when convinced of the intellectual rationale that VBAC is safe, it appears that situational pressures, including anxiety over legal liability, the inconvenience of lengthy labours, peer pressure and general resistance to change, predispose obstetricians to retain familiar, yet outdated, patterns of behaviour (Domnick Pierre, 1991, p.1287). Thus doctors not only need to be made aware of the feasibility and safety of VBAC, but also need encouragement to change their practice, coupled with support against litigation, if they are to assist women to attempt VBAC, thereby reducing the number of unnecessary repeat caesareans.

However, there is evidence to suggest that some women prefer elective caesarean sections to the potential discomfort of a trial of labour, especially after a previous experience of prolonged labour and eventual caesarean. The results of the current research and evidence from previous studies demonstrate that fear of failed trial of labour and the convenience of a scheduled delivery coupled with negative attitudes from obstetricians towards a trial of labour, all contribute to women's choice of elective caesarean section (Shepperd McClain, 1990, p.205). Yet in hospitals where VBAC is encouraged, two thirds of eligible women choose trial of labour and the majority succeed in achieving vaginal birth (Shepperd McClain, 1990, p.209). What this points to is that women need to be made aware of the feasibility and success of VBAC if they are to make informed choices.

Where population differences are evident in caesarean section rates they tend to be closely related to social class. Such social class differentials are usually associated with the difference between public and private health care with the private sector having the highest section rates. This is the case for all countries where a two-tier system of health care operates including Britain, Italy, the United States and Brazil (Macfarlane and Mugford, 1986, p.40; Bertollini et al., 1992, p.258; Stafford, 1990, p.313; Taffel et al., 1992, p.21; Janowitz et al., 1984, p.515).

The high rate of caesareans amongst women in the higher socio-economic groups is also associated with another extraneous, or non-medical variable which, in turn, increases the rate still further. It is fear of litigation. It used to be the case that only the more affluent, more educated sectors of the population would sue the medical profession in the event of a catastrophe occurring during treatment. This is therefore, in part, responsible for the high caesarean rate amongst this group. Yet now with increasing awareness amongst the general population (and possibly Mr. Major's Patient's Charter), coupled with changes in procedures for claiming legal aid instituted in 1990, legal action following problems at birth have nearly doubled (Macnair, 1992, p.18). Today almost half the obstetric consultants in Britain cite fear of litigation as a reason for the rising caesarean rate (Francome et al., 1993, p.125). What is more, fear of litigation increases stress and anxiety levels amongst doctors (Savage, 1986, p.63) and is responsible for turning large numbers of junior doctors away from obstetrics as a career and the early retirement of older practitioners (Macnair, 1992, p.18). This clearly exacerbates the problem of staff shortages which, in turn, leads to more caesareans.

There are two main ways of overcoming the problem of defensive medicine. First the introduction of no fault compensation for birth injuries, thereby acknowledging that parents of children damaged at birth need support regardless of allocation of blame. At the same time a procedure of close monitoring of standards of medical practice coupled with litigation if the standard of medical treatment falls below an acceptable level, should ensure that doctors are not punished for decisions made in good faith and women receive treatment

commensurate with their condition.

Secondly, continuity of care for women during pregnancy and labour will enable relationships to be built between the two. It is when these relationships are absent, when women see a range of different professionals each time they visit the hospital, that mistrust and resentment can develop. The number of caesareans being performed because of fear of litigation can be reduced therefore, if women are given continuity of care and enabled to build relationships with the health care professionals based on mutual trust, thus reducing the risk of women blaming the midwife or doctor in the event of something going wrong with the birth.

There is some evidence to suggest that this message is now being heard by government agencies. A recently published report of the expert maternity group 'Changing Childbirth' recommends both continuity of maternity care and an improvement in communication between the providers and recipients of care (Expert Maternity Group, 1993).

Obviously there will always be situations where a caesarean is necessary and there will always be women who need surgical interventions to enable them to deliver their babies. But the evidence suggesting that neonatal and perinatal outcomes are not improved by caesarean section rates above 6% and the wealth of evidence highlighting the negative sequelae of caesarean birth for women, their babies and the relationship between the two, point to the fact that it is clearly unacceptable to carry out caesarean section for any other reason than medical need. Every caesarean should be a necessary caesarean.

#### **RECOMMENDATION No. 2: LESS USE OF EMERGENCY CAESAREANS**

Evidence from this study has demonstrated that women who have emergency caesareans have less positive perceptions of the delivery than women who have elective caesarean deliveries and that they report significantly more distress regarding the physical sensations associated with the birth. The current study found that women who have

emergency operations report negative post-operative feelings such as tiredness, weakness and sickness more than women who have elective caesareans. Women who have emergency caesareans report post-operative feelings of depression over twice as much as women who have elective sections.

Adding to the problems of emergency caesarean birth is the fact that women are often separated from their babies following delivery. Babies are frequently routinely taken into intensive care units regardless of their condition. Furthermore, women having emergency operations are more likely to leave hospital before their babies than women whose caesareans are elective. Evidence demonstrates that early and continued contact between mother and child is important for the development of the relationship between the two (Klaus and Kennel, 1982, p.56). Women who have had emergency caesareans may therefore experience adverse effects on their relationships with their children. In other words, their ability to bond appropriately with their children may be put in jeopardy because of emergency caesarean operations.

Similarly, the present study found that more emergency caesarean women said that they did not want to breastfeed their babies because they had "*changed their minds*". It can not be deduced from these data whether women had changed their minds as a result of the operation, but a significant proportion of the emergency caesarean women said that they did not want to breastfeed because they "*felt too ill*". Given the importance of breastmilk to babies in the first few months following birth, the practice of emergency caesarean section means that many babies are being denied the benefits of breastmilk and may suffer higher rates of morbidity as a result.

The increased negative sequelae experienced by women having emergency caesareans can be explained in terms of lack of preparation for, and expectation of abdominal delivery. From the results of the present research, it is clear that lack of mental and physical preparation amongst emergency caesarean patients leads to increased psychological and physical morbidity. This evidence suggests that the unplanned or emergency caesarean delivery may have more influence on the woman's experience of birth than the caesarean delivery per se. This is

probably because in the emergency situation there is not enough time for the procedure to be explained to the woman or for the medical practitioners to keep the woman fully informed of all that is happening to her. Nearly four times as many women having emergency caesareans feel that they are not kept fully informed during their treatment compared to women having elective operations.

When the caesarean is elective, the woman has time to acquire the knowledge and information she will need to deal appropriately with the operation. She will have time to read about caesarean birth and to discuss any queries with health professionals which should enable her to come to terms with what is about to happen and thereby avoid the feelings of complete disappointment that many emergency caesarean patients feel. The need for women to be better prepared for the possibility of caesarean birth at the antenatal stage is addressed in 'Recommendation No.4'. But, what this evidence points to is the need for caesareans, when medically indicated, to be elective in all possible cases, thereby enabling the woman to familiarise herself with the procedures and after-effects of caesarean birth in order to avoid some of the negative repercussions that many women currently suffer.

Results of the current research have shown that almost three in five (56%) caesareans in Britain are emergency operations. Nearly half of these (49.1%) are performed because labour is taking a long time (dystocia) and/or the baby is distressed (foetal distress). Yet both of these diagnostic categories envelope many conditions and, as such, lend themselves to individual interpretation. Further, they have the potential for over-use in situations where medical staff are unclear of how to proceed or are unwilling to proceed with a labour that they perceive to be 'difficult'. There are two main problems associated with the use of vague diagnostic categories. The first is that doctors and midwives become deskilled in the management of labours that, for whatever reason, are not perceived to be 'normal', and secondly, the medical labels 'dystocia' and 'foetal distress' given as rationale for caesarean operations imply to women that decisions have been made on the basis of medical need alone. Thus women are unlikely to question such medical decisions and are thereby disempowered in the delivery process as they are not able to make informed choices about their care.

The increasing use of technology to manage labour and the fact that the use of one intervention tends to lead to a whole sequence of interventions, means that medical students, doctors and midwives in training do not see as many normal labours as they need to in order to understand the individual pattern of an average range of women in labour (Savage, 1986, p.63). The staffing of labour wards by registrars and other relatively junior staff tends to lead to an increase in the use of emergency caesarean operations because the doctors do not have the skill or experience to proceed with labours which do not fit in with the expected average time scales for labour.

The answer to this problem is first to increase education and understanding about the whole spectrum of differences in labour rather than relying on estimates of an average range of women in labour. Secondly, to revive obstetric skills which appear to have been lost over time such as external version, instead of resorting to caesarean section in all cases other than vertex presentation. Finally, a solution to this problem would be to have the majority of labours managed by midwives who are often more experienced in the range of different labours and are less likely than obstetricians to resort to interventionist techniques to aid delivery. This way, the majority of women who do not need medical or surgical interventions will not be subjected to them, and the skills and expertise of the obstetricians will be utilised appropriately for the minority of women who need them.

What this means is that women will not be subjected to emergency caesarean sections because their labours do not fit into an average calculation of women in labour, or because medical staff attending the labour do not have experience of dealing with a full range of different deliveries. Less emergency caesareans, with the accompanying negative sequelae, will mean more positive experiences of childbirth for women.

### RECOMMENDATION No. 3: THE USE OF REGIONAL ANAESTHESIA IN ALL POSSIBLE CASES OF CAESAREAN SECTION

It is clear that women who have emergency caesarean operations have less positive experiences than those who have elective operations.

What is also clear is that the negative effects of emergency caesareans are compounded by the use of general anaesthesia. Over 60% of caesareans are performed on women under general anaesthesia, the majority of which are emergency operations. This means that the majority of caesarean patients are being denied a satisfactory experience of childbirth. Caesarean delivered women who have had regional anaesthesia tend to report more positive experiences of birth than those who have their operations under regional anaesthesia.

The results of the current study have shown that women who remain conscious for their caesarean operations feel as though they have taken part in the delivery of their babies. It appears that being awake for the birth is analogous to having participated for many women. Other studies have demonstrated that regional anaesthesia allows women to retain a sense of control over what is happening and therefore increases their satisfaction with the birth process (Sargent and Stark, 1987, p. 1272).

The use of regional anaesthesia for caesarean section also makes it easier for women in the early postnatal period as they are not recovering from the effects of general anaesthesia and are therefore more free to respond to their babies' needs.

Another benefit of regional anaesthesia is that women do not experience the 'missing pieces' that frequently occur to women who have had operations under general anaesthetic. What this means is that women are not able to recollect important aspects of the birth and this is a cause of distress and upset for them. The present study found that one in nine women (11.7%) who had emergency operations could not remember whether or not they saw their babies immediately after the birth. A finding that is almost entirely the result of the use of general anaesthesia for emergency operations.

Partners or birth companions are frequently permitted to be present for caesarean births when regional anaesthesia is being used. They are often excluded when the operation is performed with the patient under general anaesthetic. The results of a survey of consultants' views on caesarean section confirmed that the use of general anaesthesia is

cited by doctors as a contra-indication for allowing partners into the operating theatre (Francome et al, 1993, pp.136-7). Yet women report greater satisfaction with caesarean delivery when they have been able to share it with their partner or birth companion. It may be that this is deemed to be unimportant for women having general anaesthesia as, after all, they are asleep during the birth. But one of the benefits of having a partner present during delivery is that they can share their recollections of the birth and fill in any missing pieces. The benefits to women having general anaesthesia are therefore obvious.

Evidence from other studies has shown that the negative effects of the use of general anaesthesia for caesarean operations are that it increases post-operative morbidity (Oakley and Richards, 1990, p.195; Morgan et al., 1984, p.329; Lelong and Kaminski, 1987, p.197), and not least of all, general anaesthesia is associated with increased rates of maternal mortality (Chalmers and Richards, 1977, p.46; DHSS, 1982, table 8.3; DH, 1991, p.74).

Although it was not within the remit of the present study to examine the long-term effects of caesarean birth, work by other researchers has demonstrated a link between the use of general anaesthesia and detrimental effects on the mother-baby relationship (Gottlieb and Barratt, 1986, p.180, in Fisher, et al., 1990, p.96). However, the results of the current study do show that almost one in four women (22.6%) having emergency operations did not want to breastfeed their babies because they "*felt too ill*". It is not unreasonable to deduce that this is the result of the use of general anaesthesia as sickness is a common after-effect.

What is surprising is that a significant proportion (41.7%) of women having elective operations also have general anaesthesia. Yet the reasons that may be given for the use of general anaesthesia in emergency situations, such as the presence of foetal distress or dystocia, will not apply in an elective caesarean situation. It appears therefore that general anaesthesia is being used for elective operations for other reasons. It may be that women are reluctant to be awake for major surgery. If this is the case, it reflects a lack of information and hence knowledge amongst childbearing women about the



benefits of being awake for caesarean birth. It may also be a reflection of hospital or consultant policy which dictates that women are under general anaesthesia for caesarean operations. If women are being told by doctors that general anaesthetic is preferable, they are unlikely to question such advice.

Of course one of the most important outcomes of any pregnancy is the birth of a healthy baby. Yet for women success in childbirth may also mean more in terms of a personally satisfying experience, leading to a sense of accomplishment and not to a sense of failure and loss of control. What this means is that the over-use of general anaesthesia for caesarean birth is denying women a satisfactory experience of childbirth and a fulfilling start to motherhood. It is clear therefore that the needs of women are not being taken into account when decisions are made about anaesthesia for caesarean operations. Rather, decisions are being based on consultant preference and/or policy, the use of available resources and out-dated practices.

The answer, and therefore the recommendation of this study, is that the experience of women who have to undergo caesarean section could be improved dramatically if they are awake for the operation. Thus regional anaesthesia should be used for caesarean section in all possible cases.

**RECOMMENDATION No. 4: WOMEN SHOULD BE FULLY INFORMED AT ALL STAGES OF TREATMENT**

The results of the current study have shown that women who are better prepared for caesarean birth have a more rewarding experience overall. Thus, for example, women who have had previous caesareans tend to report greater satisfaction with their treatment before the operation, during it and post-operatively. There are two main reasons for this. First, women having second or third caesareans are more likely to have elective operations, therefore they do not expect a vaginal birth and are not subsequently disappointed that this has been denied them. A related point is that women are more often given epidural or spinal anaesthetic for elective operations and it has been demonstrated

through the current research that women who are awake for the birth of their babies feel much better about the caesarean than those who are given general anaesthetic. Secondly, women having subsequent operations are better prepared mentally for all that caesarean birth entails. They are aware of the after-effects of the operation, they know that it will be painful, they do not expect to be up and about doing everything for their newborn. What this points to is the need for women to be appropriately prepared during their pregnancy for the possibility of caesarean birth.

One respondent in the current study, interviewed some time after her emergency caesarean, said about the operation:

*"Ten months on, it is still frequently on my mind. I crave for answers to questions that I know will probably never be answered, such as: What if I had gone another hour, would it have made a difference? What if I had been under a different Consultant?"*

*"When I am ready to have my next child, I will do everything in my power to avoid repeating the experience as, although physically I healed very quickly, mentally, the wound is still as fresh as the day it was made".*

Clearly there are deficiencies in the current system of emergency caesareans. Nearly four times as many women having emergency operations feel that they are not kept adequately informed of their condition and that of their nearly-born baby compared to women having elective caesareans. Obviously this is in large part due to the intensity of work and shortage of time in an emergency situation, but should surely raise questions about appropriate preparation for the potential of caesarean birth at the antenatal stage.

One of the most startling observations to come out of this research is the fact that most women are completely unprepared for operative delivery. Although caesarean birth is currently mentioned at antenatal classes it must be noted that not all women attend these classes, and the philosophy 'it'll never happen to me' comes into play in this situation particularly when the pregnancy has been unproblematic.

It also points to the fact that there is a lack of understanding

generally about caesarean birth. Women who have not experienced it often see it as a 'soft' option and do not realise the pain, discomfort, lack of mobility and lengthy recovery that it entails. Medical practitioners do not always realise that women who are better informed have better experiences of operative birth. Obviously it is not always possible to keep the patient fully informed at all stages in an emergency situation, but does indicate that all pregnant women need to have full knowledge of caesarean section, whether they are deemed to be 'at risk' in terms of possibly needing a section or not. Similarly medical staff need to be sensitive to the post-operative needs and feelings of women who have had caesareans as they will not always be able to deal with their newborns as well as they had expected to and this can cause stress and depression.

From the comments made by the women in the present study it is clear to see that many experience very mixed feelings about the operation. Obviously they are thankful that it is available and understand the necessity of it in certain circumstances. Yet because the majority of women are incapacitated by the surgery they are unable to fulfil what they see as their obligations to their newborn babies. This will inevitably lead to conflict for the women concerned.

It appears that, on the whole, women feel as though they are kept informed about their condition and that of their baby, about the treatment they are being given and about the reasons for the operation. However, information is severely lacking in terms of the procedure of caesarean section and the effects on women post-operatively. It is clear from the results of the current research that women require more information about caesareans. This includes what to expect both during and after the procedure and the implications of being awake or asleep for the operation. All antenatal classes should incorporate this information as well as caesarean statistics. Thus women might realise that the experience is not so rare and that there are choices they can make both to reduce the risk of a caesarean occurring and to make the experience, if it happens to them, as well as its aftermath, as positive as possible. If women are to make informed decisions about what happens to them in hospital and to be empowered to take a full and rewarding part in the birth of their children then they need to realise

that caesarean birth is a very real possibility for many, and they need appropriate information in order to reduce feelings of shock, disappointment and resentment.

Clearly women need to be better informed antenatally. However, it appears that once they are in hospital women are still not receiving the information they need to be able to make informed decisions. One of the reasons that women are currently so ill-informed is because there is not always agreement over whose responsibility it is to keep women informed, particularly during labour and childbirth. Some commentators have suggested that nursing staff could take a more active role in informing women of what is happening, or about to happen to them (Cartwright, 1979, p.165). However, it appears that when nursing staff do take on this role, it is not always in the interest of the women concerned. There is evidence to suggest that women receive conflicting advice from different members of staff (Hillan, 1992, p.165). Further, there are often discrepancies between different professional groups over the details of particular cases (Perez, 1989, p.133). Similarly, discrepancies have been found between what women are told and what is recorded in their medical notes (Perez, 1989, p.130; Hillan, 1992, p.172).

A solution to the problem of women being ill-informed in childbirth is continuity of care. Continuity of care before, during and after caesarean delivery is much less common than with vaginal delivery (Inch, 1986, p.67). The majority of women would prefer continuity of care (Graham and Oakley, 1981, p.66), yet very few receive such treatment and at least one in three women never see the same person throughout their care (Martin, 1990, p.155).

Where women do receive continuity of care, they are more likely to rate their care as 'good' or 'very good' (Martin, 1990, p.155). If women are given continuity of care they are able to build relationships with the health professionals who will assist them during childbirth. In this way relationships can be built on trust and mutual understanding rather than suspicion and resignation of women to paternalistic medical dogma.

Evidence suggests that not only is there room for improvement in the communication between women and their attendants during childbirth but also that some information given to women by their attendants in hospital is, at the best inadequate, and at the worst, untruthful. Inconsistencies in the results of the current research compared with findings from a survey of consultants' views on caesarean section illustrate this. Almost half the doctors gave 'fear of litigation' as a reason for the increase in caesarean section rates (Francome et al., 1993, p.130), yet women are told that their caesareans are necessary for reasons of dystocia or foetal distress. Similarly whilst evidence from previous research suggests that caesareans are performed for the convenience of medical staff (Cartwright, 1979, p.28; Macfarlane, 1984, p.692; Perez, 1989, p.132; Bertollini et al., 1992, p.259), women are given medical rationale for their operations. Clearly women are not being given the correct information and, as such, are disempowered in childbirth. Without adequate information women are not able to make informed choices.

Peter Huntingford, a consultant obstetrician who has spoken in favour of women's right to control childbirth said in 1985:

*"In my opinion, the practice of obstetrics for defensive reasons is totally unjustified and misguided. If doctors were not so arrogant and were more truthful, they would not need to practise in this way. All they have to do is to reveal their own weaknesses and lack of knowledge. For most doctors, the most truthful response they could give in many cases would be: 'I don't know what the cause is or what is the best course of action.' Doctors would not need to practise defensively if they were willing to say: 'This is the situation as I see it: we could do this or that, but I am not really sure what is best. Under these circumstances, what would you prefer me to do?' In my experience, by sharing responsibility like this I am more likely to make the best decision and furthermore (although this is a secondary consideration), I am less likely to be blamed when the outcome is tragedy. Being truthful and sharing responsibility is not opting out. It does not absolve us from responsibility. It is the more difficult course to follow, since it requires more time, more emotional involvement and more consideration of the wishes of others rather than of our own" (Huntingford, 1985, pp.6-7).*

In the same year, the World Health Organisation (WHO) published a

statement on the use of technology in childbirth which recommended that:

*"Technology assessment should involve all those using the technology, epidemiologists, social scientists, health authorities and the women on whom the technology is used"* (WHO, 1985, p.437).

What is most unfortunate is the fact that almost ten years since the WHO's recommendations on the use of technology in childbirth were published, women are still not being enabled to take a full and meaningful role in the delivery of their children.

Clearly Huntingford's sentiments echo the recommendations of the WHO statement. His suggested solution is that in order to give the patients needs and wishes priority over those of the medical practitioners, doctors need to give more time and be prepared to make an emotional investment in their relationships with their patients. Further, this requires them to be more honest, particularly when the required course of action is not clear-cut. To acknowledge this uncertainty and to share it with the patient, who, after all, has the right to know.

The recommendation of this study therefore, is a complete reorganisation of the doctor-patient relationship. For doctors, this means giving up some of their power and authority. Consultants and hospital staff need more information too. They need to know about caesarean section rates, about the benefits and hazards of performing the operation and, more specifically, they need to be made aware of the effect that abdominal delivery has on women and their babies in the short and long term. What is also clear from the results of the survey of consultant's attitudes to caesarean section is that doctors also need more information in relation to the number of caesareans being carried out by their hospital in general, and themselves as individuals in particular (Savage and Francome, 1993, p.495).

Not only is it the case that the medical professions need to be encouraged to impart information to women to empower them to participate in decision-making and to enable them to feel as though

they have taken a full and meaningful role in the birth of their babies, but health practitioners need to ensure that the information given to women is accurate and imparted at a level that is accessible to the women concerned. Only then will a 'successful' outcome be achieved by women as well as doctors.

For women, the reorganisation of the doctor/patient relationship means taking control over their bodies.

In 1979, Ann Cartwright stated:

*"The women's movement may have raised expectations and heightened awareness among some women, but it has a long way to go in giving women the confidence and ability to challenge and change services rather than passively to accept them"* (Cartwright, 1979, pp.163-4).

Cartwright's answer to this problem is that women should be encouraged to first, ask more questions rather than waiting and hoping to find out what they want to know, to not allow themselves to be 'fobbed off' with answers that do not give them the information they require, and to overcome their reluctance to expose their ignorance and uncertainties. Secondly, to make their own wishes and preferences known and to demand to know why their stated preferences are ignored. Finally, women should be encouraged to insist on being involved in important decisions that are made about them (Cartwright, p.164). However, it appears that if women are to be empowered in this way it would necessarily involve a complete reorganisation of the relationship between pregnant women and the medical professionals whereby doctors relinquish some of their control.

Only then will the patient will be able to take an active role in decision-making about her body and her treatment, she will be empowered to make an informed choice rather than relying totally on the decision of the medical practitioners. Previous studies have demonstrated that women do want to be informed about issues relating to caesarean birth including the reasons and rationale behind performing the operation and the medical and surgical complications associated with caesarean delivery (Fawcett and Burritt, 1985, p.227). Women need this

information in order to take part in decisions that are made about them and to participate as fully as possible in the delivery of their babies. However, the results of the present study suggest that, in the hospital situation, women are prepared to rely totally on the judgement of the doctors and in some respects, expect to be told what is happening and what will happen to them. Therefore it is not only the doctors who need to be re-socialised into a new way of thinking and relating to their patients. Women too need to be made aware of their rights, that their own knowledge and feelings about childbirth are valuable, and more importantly, that the doctor does not always know best.

#### SUMMARY OF RECOMMENDATIONS

1. A MORE SELECTIVE USE OF CAESAREAN SECTION.
  
2. LESS USE OF EMERGENCY CAESAREANS.
  
3. THE USE OF REGIONAL ANAESTHESIA FOR ALL POSSIBLE CASES OF CAESAREAN.
  
4. WOMEN SHOULD BE FULLY INFORMED AT ALL STAGES OF TREATMENT.



**BIBLIOGRAPHY AND REFERENCES:**

**VOLUME II**

---

Affonso, D. and Stichler, J. (1980) *Cesarean Birth: Women's Reactions*, *American Journal of Nursing*, March: 468-70.

Albers, L.L. and Savitz, D.A. (1991) *Hospital setting for birth and use of medical procedures in low-risk women*, *Journal of Nurse Midwifery*, 36 (6): 327-33.

Baruffi, G., Strobino, D.M. and Paine, L.L. (1990) *Investigation of institutional differences in primary cesarean birth rates*, *Journal of Nurse Midwifery*, 35(5): 274-81.

Bertollini, R., DiLallo, D., Spadea, T. and Perucci, C. (1992) *Cesarean Section Rates in Italy by Hospital Payment Mode: An Analysis Based on Birth Certificates*, *American Journal of Public Health*, 82: 257-61.

Bowers, S.K., MacDonald, I.T.M. and Shapiro, E.D. (1982) *Prevention of iatrogenic neonatal respiratory distress syndrome: elective repeat cesarean section and spontaneous labor*, *American Journal of Obstetrics and Gynaecology*, 143: 186-89.

Boyd, C., and Francome, C. (1986) One Birth in Nine, London: Maternity Alliance.

Brahams, D. (1988) *A visit to the USA - part I*, *New Law Journal*, 138: 361-63.

Brith, K., Larsen, T. and Torgersen, S. (1992) *A longitudinal study of women in childbirth and their four-year-old children*, *Journal of Reproductive and Infant Psychology*, 10(3): 177-82.

Burt, R.D., Vaughn, T.L. and Daling, J.R. (1988) *Evaluating the risks of cesarean section: low Apgar score in repeat cesarean section and vaginal deliveries*, *American Journal of Public Health*, 78: 1312-14.

Butler, N.R. and Bonham, D.G. (1963) Perinatal Mortality, London: Livingstone.

Cain, R.L. et al. (1984) *Effects of Father's Presence or Absence During a Cesarean Delivery*, *Birth*, 11: 10-15.

Cartwright, A. (1979) The Dignity of Labour? A Study of Childbearing and Induction, London: Tavistock.

Chalmers, I. and Richards, M. (1977) *Intervention and Causal Inference in Obstetric Practice*, in Chard, T. and Richards, M. (eds) Benefits and Hazards of The New Obstetrics, London: William Heinemann Medical Books.

Chalmers, I. (1985) *Trends and variations in the use of Caesarean section*, in Clinch, J. and Matthews, T. (eds) Perinatal Medicine, Lancaster: MTP Press.

- Chamberlain, G. (1993) *What is the correct caesarean section rate?*, *British Journal of Obstetrics and Gynaecology*, 100(5): 403-4.
- Cohen, M. and Carson, B.S. (1985) *Respiratory morbidity benefit of awaiting onset of labour after elective cesarean section*, *Obstetrics and Gynaecology*, 65: 818-24.
- Cohen, N.W. (1977) *Minimising emotional sequelae of caesarean childbirth*, *Birth*, 4: 114-19.
- Cohnklin, M.M. (1977) *Discussion groups as preparation for Cesarean section*, *Journal of Obstetrics, Gynaecology and Neonatal Nursing*, 6(4): 52-54.
- Conner, B.S. (1977) *Teaching about Cesarean birth in traditional childbirth classes*, *Birth and the Family Journal*, 4: 107-113.
- Cox, B. and Smith, E. (1982) *The Mother's Self-Esteem after a Caesarean Delivery*, *Maternal Child Nursing*, 7: 309-14.
- Cranley, M.S., Hedahl, K.J. and Pegg, S. (1983) *Women's perceptions of vaginal and cesarean deliveries*, *Nursing Research*, 32: 10-15.
- C/SEC: *Cesareans/Support Education and Concern Newsletter* (1987) 13(3).
- Culp, R.E. and Osofsky, H.J. (1989) *Effects of cesarean delivery on parental depression, marital adjustment and mother-infant interaction*, *Birth*, 16(2): 53-7.
- Dean, S. (1986) *Change the subject - I've had a Caesarean*, *Nursing Times*, May 28, *Midwives Journal*: 66.
- Department of Health and Social Security (1982) Report on Confidential Enquiries into Maternal Deaths in the United Kingdom, London: HMSO.
- Department of Health (1991) Report on Confidential Enquiries into Maternal Deaths in the United Kingdom, London: HMSO.
- Derom, R., Patel, N.B. and Thiery, M. (1987) *Implications of increasing rates of Caesarean section*, in Studd, J. (ed) Progress in Obstetrics and Gynaecology, Vol. VI, Edinburgh: Churchill Livingstone.
- Domenighetti, G. Luraschsi, P. and Marazzi, A. (1985) *Hysterectomy and sex of the gynecologist*, *New England Journal of Medicine*, 313: 1482.
- Domnick Pierre, K. Vayda, E., Lomas, J., Endin, M.W., Hannah, W.J. and Anderson, G.M. (1991) *Obstetrical attitudes and practices before and after the Canadian Consensus Conference Statement on cesarean birth*, *Social Science and Medicine*, 32(11): 1283-9.
- Eakes, M. (1990) *Economic considerations for epidural anesthesia in childbirth*, *Nursing Economics*, 8(5): 329-32.
- Egbert, L.D., Battit, G.E., Welch, C.E. and Bartlett, M.K. (1964) *Reduction of postoperative pain by encouragement and instruction of patients*, *New England Journal of Medicine*, 270: 825-827.

- Ehrenreich, B. and English, D. (1979) For Her Own Good, 150 Years of the Experts' Advice to Women, London: Pluto.
- Eisner, M. and Wright, M. (1986) *A feminist approach to general practice*, in Webb, C. (ed) Feminist Practice in Women's Health Care, Chichester: John Wiley and Sons.
- Engelkes, E. and van Roosmalen, J. (1992) *The Value of Symphyseotomy Compared with Caesarean Section in Cases of Obstructed Labour*, *Social Science and Medicine*, 35(6): 789-93.
- Enkin, M.W. (1977) *Having a section is having a baby*, *Birth and the Family Journal*, 4: 99-103.
- Entwisle, D.R. and Alexander, K.L. (1987) *Long-Term Effects of Cesarean Delivery on Parents' Beliefs and Children's Schooling*, *Developmental Psychology*, 23: 676-82.
- Expert Maternity Group (1993) Changing Childbirth: the report of the expert maternity group, (Cumberlege Report), London: HMSO
- Fawcett, J. (1981) *Needs of Cesarean birth parents*, *Journal of Obstetric, Gynaecological and Neonatal Nursing*, 10: 372-6.
- Fawcett, J. and Burritt, J. (1985) *An Exploratory Study of Antenatal Preparation for Cesarean Birth*, *Journal of Obstetric, Gynecological and Neonatal Nursing*, 14(3): 224-30.
- Fawcett, J. and Henklein, J.C. (1987) *Antenatal education for cesarean birth: extension of a field test*, *Journal of Obstetric, Gynaecologic and Neonatal Nursing*, 16(1): 61-5.
- Fawcett, J. (1990) *Preparation for Cesarean childbirth: derivation of a nursing intervention from the Roy Adaptation Model*, *Journal of Advanced Nursing*, 15: 1418-1425.
- Fawcett, J., Pollio, N. and Tully, A. (1992) *Women's Perceptions of Cesarean and Vaginal Delivery: Another Look*, *Research in Nursing and Health*, 15: 439-46.
- Fawcett, J., Pollio, N., Tully, A., Baron, M., Henklein, J.C. and Jones, R.C. (1993) *Effects of Information on Adaptation to Cesarean Birth*, *Nursing Research*, 42(1): 49-53.
- Fisher, J.R.W., Stanley, R.O. and Burrows, G.D. (1990) *Psychological adjustment to Cesarean delivery: a review of the evidence*, *Journal of Psychosomatic Obstetrics and Gynaecology*, 11(2): 91-106.
- Francome, C. (1990) Sane New World. Replacing Values, Middlesex: Carla Publications.
- Francome, C. and Huntingford, P.J. (1980) *Births by Cesarean Section in the United States of America and Britain*, *Journal of Biosocial Science*, 12: 353-62.

Francome, C., Savage, W., Churchill, H. and Lewison, H. (1993) Caesarean Birth in Britain, Cambridge: Middlesex University.

Fullerton, J.T. and Severino, R. (1992) *In-hospital care for low-risk childbirth: comparison with results from the National Birth Center Study*, *Journal of Nurse Midwifery*, 37(5): 331-40.

Graham, H. and Oakley, A. (1981) *Competing ideologies of reproduction: medical and maternal perspectives on pregnancy*, in Roberts, H. (ed) Women, Health and Reproduction, London: Routledge and Kegan Paul.

Greene, P.G., Zeichner, A., Roberts, N.L., Callahan, E.J. and Granados, J.L. (1989) *Preparation for Caesarean delivery: a multicomponent analysis of treatment outcome*, *Journal of Consultants in Clinical Psychology*, 57: 484-87.

Guillemin, J. (1981) *Babies by cesarean: Who chooses, who controls?*, *Hastings Center Report*, 11: 15-19.

Hall, M.H., Campbell, D.M., Fraser C. and Lemon, J. (1989) *Mode of delivery and future fertility*, *British Journal of Obstetrics and Gynaecology*, 96: 1297-1303.

Hansell, R.S., McMurray, K.B. and Huey, G.R. (1990) *Vaginal birth after two or more cesarean sections: a five-year experience*, *Birth*, 17(3): 146-50.

Health Committee (1992) Maternity Services, House of Commons, Second Report, London: HMSO.

Hedahl, K.J. (1980) *Working with families experiencing 'Caesarean birth'*, *Pediatric Nursing*, 6(5): 21-25.

Hemminki, E. (1991) *Long term maternal health effects after caesarean section*, *Journal of Epidemiology and Community Health*, 45: 24-28.

Hillan, E. (1991) *Caesarean Section: Psychological Effects*, *Nursing Standard*, 5(50): 30-33.

Hillan, E. (1992) *Research and Audit, Women's views of caesarean section*, in Roberts, H. (Ed.) Women's Health Matters (1992) London: Routledge.

Holt, M. (1986) *Ghosts from the past*, *Nursing Times*, Aug. 13: 60.

Hughes, D. and Parker, O. (1986) *Paving the way to reform*, *Nursing Times*, May 28, *Midwives Journal*: 62.

Huntingford, P. (1985) Birth Right. The Parents' Choice, London: BBC.

Hurst, M. and Summey, P. (1984) *Childbirth and Social Class: The Case of Caesarean Delivery*, *Social Science and Medicine*, 18(8): 621-31.

Illich, I. (1976) Limits to Medicine. Medical Nemesis: The Expropriation of Health, London: Marion Boyers.

- Inch, S. (1985) Birthrights, A Parents' Guide to Modern Childbirth, London: Hutchinson.
- Inch, S. (1986) *When the midwife misses out*, Nursing Times, May 28, Midwives Journal: 67.
- Inlander, C.B. (1990) *Truth in Medicine*, Nursing Economics, 8(3): 196 & 198.
- Janke, J.R. (1988) *Breastfeeding duration following cesarean and vaginal births*, Journal of Nurse Midwifery, 33(4): 159-64.
- Janowitz, B., Wallace, S. and Araujo, L. (1984) *Method of payment and the cesarean birth rate in a hospital in North-east Brazil*, Journal of Health Politics, Policy and Law, 9: 515-526.
- Kanto, J., Laine, M., Vuorisalo, A. and Salonen, M. (1990) *Pre-operative Preparation*, Nursing Times, 86(20): 39-41.
- Kearney, M.H., Cronenwett, L.R. and Reinhardt, R. (1990) *Cesarean delivery and breastfeeding outcomes*, Birth, 17(2): 97-103.
- Kennel, J.H., Jerauld, R., Wolfe, H., Chesler, D., Kreger, N.C., McAlpine, W., Steffa, M. and Klaus, M.H. (1974) *Maternal Behaviour One Year After Early and Extended Post-partum Contact*, Developmental Medicine and Child Neurology, 16: 172-9.
- Kirkham (1986) *A feminist perspective on midwifery*, in Webb, C. (ed) Feminist Practice in Women's Health Care, Chichester: John Wiley and Sons.
- Kitzenger, S. (1980) Pregnancy and Childbirth, London: Penguin.
- Klaus, M.H. and Kennell, J.H. (1982) Parent-Infant Bonding, London: The C.V. Mosby Company.
- Krishnamurthy s., Fairlie, F., Cameron, A.D., Walker, J.J. and MacKenzie, J.R. (1991) *The Role of Postnatal X-ray Pelvimetry after Caesarean Section in the Management of Subsequent Delivery*, British Journal of Obstetrics and Gynaecology, 98: 716-18.
- Laufer, A., Hodenius, V., and Friedman et al. (1987) *Vaginal birth after Caesarean section: Nurse - Midwifery Management*, Journal of Nurse-Midwifery, 32(1): 41-47.
- Lelong, N. and Kaminski, M. (1987) *Psychological Consequences of Caesarean Childbirth in Primiparas*, Journal of Psychosomatic Obstetrics and Gynaecology, 6: 197-209.
- Lomas, J. and Enkin, M. (1989) *Variations in operative delivery rates*, in Chalmers, Enkin and Keirse (eds) Effective Care in Pregnancy and Childbirth, Oxford: Oxford University Press.
- MacArthur, C., Lewis, M. and Knox, E.G. (1991) Health after Childbirth, London: HMSO.

- Macdonald, R. (1990) *Analgesia following Caesarean section*, 103: 202-4.
- Macfarlane, A. (1984) *Day of Birth*, *The Lancet*, 2: 695.
- Macfarlane, A. and Mugford, M. (1986) *An epidemic of Caesareans?*, *Maternal and Child Health*, 11: 38-42.
- Macnair, P. (1992) *Cutting both ways, the reasons behind the rising number of births by Caesarean section*, *The Guardian*, 4.2.92: 18.
- Marieskind, H. I. (1989) *Cesarean section in the United States: has it changed since 1979?*, *Birth*, 16(4): 196-202.
- Martin, C. (1990) *How Do You Count Maternal Satisfaction? A User-commissioned Survey of Maternity Services*, in Roberts, H. (ed) Women's Health Counts London: Routledge.
- Marut, J.S. and Mercer, R.T. (1979) *Comparison of primiparas' perceptions of vaginal and cesarean births*, *Nursing Research*, 28: 260-6.
- May K.A. and Sollidd, D.T. (1984) *Unanticipated Cesarean Birth from the Father's Perspective*, *Birth*, 11: 87-95.
- McCusker, J., Harris, D.K. and Hosmer, D.W. (1988) *Association of electronic fetal monitoring during labour with cesarean section rate and with neonatal morbidity and mortality*, *American Journal of Public Health*, 78: 1170-4.
- McGarry, J.A. (1969) *The Management of Patients Previously Delivered by Caesarean Section*, *Journal of Obstetrics and Gynaecology of the British Commonwealth*, 76: 137-43.
- McIlwaine, G.M., Cole, S.K. and Macnaughton, M.C. (1985) *The Rising Caesarean Rate - A Matter of Concern?*, *Health Bulletin*, 43(6): 301-5.
- Moldin, P., Hökegård, K-H. and Nielsen, T.F. (1984) *Caesarean Section and Maternal Mortality in Sweden 1973-1979*, *Acta Obstetrics and Gynecology Scandanavia*, 63: 7-11.
- Molloy, B.G., Sheil, O. and Duignan, N.M. (1987) *Delivery after caesarean section: review of 2176 consecutive cases*, *British Medical Journal*, 294: 1645-7.
- Morgan, B.M., Aulakh, J.M., Barker, J.P., Reginald, P.W., Goroszeniuk, T., and Trojanowski, A. (1984) *Anaesthetic Morbidity Following Caesarean Section under Epidural or General Anaesthesia*, *The Lancet*, 1: 328-30.
- Morgan, D. (1992) *Whatever happened to consent?*, *New Law Journal*, 142: 1448.
- Murray-Arthur, F. and Correy, J.F. (1984) *A Review of Primary Caesarean Sections in Tasmania*, *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 24: 242-5.

Myers, S.A. and Gleicher, N. (1990) *1988 US Cesarean-Section Rate: Good News or Bad?*, *The New England Journal of Medicine*, 323(3): 200.

National Institutes of Health (NIH) (1981) Cesarean Birth: Report of a Consensus Development Conference, Bethesda, Maryland: NIH Publication No. 82-2067.

Nielsen, T.F. and Hökegård, K-H. (1984) *Cesarean Section and Intraoperative Surgical Complications*, *Acta Obstetrics and Gynecology Scandinavia*, 63: 103-8.

Nielsen, T.F., Ljungblad, U. and Hagberg, H. (1989) *Rupture and dehiscence of cesarean section scar during pregnancy and delivery*, *American Journal of Obstetrics and Gynecology*, 160: 569-73.

Nolan, M. (1990) *Normal Delivery after Caesarean Section*, *Nursing Times*, Aug. 8, Vol. 86, 32: 34-36.

Notzon, F.C., Placek, P.J. and Taffel, S.M. (1987) *Comparisons of National Cesarean-Section Rates*, *The New England Journal of Medicine*, 316(7): 386-9.

O'Driscoll, K., Jackson, R.J.A. and Gallagher, J.T. (1970) *Active Management of Labour and Cephalopelvic Disproportion*, *The Journal of Obstetrics and Gynaecology of the British Commonwealth*, 77(5): 385-9.

O'Driscoll, K. and Foley, M. (1983) *Correlation of decrease in perinatal mortality and increase in Caesarean section rate*, *Obstetrics and Gynaecology*, 61(1): 1-5.

O'Driscoll, K., Foley, M. and MacDonald, D. (1984) *Active Management of Labour as an Alternative to Cesarean Section for Dystocia*, *Obstetrics and Gynecology*, 63(4): 485-90.

Oakley, A. (1977) *Cross Cultural Practices*, in Chard, T. and Richards, M. (eds) Benefits and Hazards of the New Obstetrics, London: William Heinemann Medical Books.

Oakley, A. (1980) Women Confined, Oxford: Martin Robertson & Co. Ltd.

Oakley, A. (1983) *Social consequences of obstetric technology: the importance of measuring 'soft' outcomes*, *Birth*, 10: 99.

Oakley, A. (1984) The Captured Womb, Oxford: Basil Blackwell.

Oakley, A. and Richards, M. (1990) *Women's Experiences of Caesarean Delivery*, in Garcia, J., Kilpatrick, R. and Richards, M. (eds) The Politics of Maternity Care, Oxford: Clarendon Press.

Olofsson, P. and Rydhström, H. (1985) *Twin delivery: How should the second twin be delivered?*, *American Journal of Obstetrics and Gynecology*, 153(5): 479-81.

Padawer, J.A., Fagan, C., Janoff-Bulman, R. and Strickland, B.R. (1988) *Women's Psychological Adjustment Following Emergency Cesarean Versus Vaginal Delivery*, *Psychology of Women Quarterly*, 12: 25-34.

- Parer, J.T. and Livingston, E.G. (1990) *What is fetal distress?*, *American Journal of Obstetrics and Gynecology*, 162: 1421-7.
- Paterson, C.M. and Saunders, N.J.StG. (1991) *Mode of delivery after one caesarean section: audit of current practice in a health region*, *British Medical Journal*, 303: 818-20.
- Paul, R.H., Phelan, J.P. and Yeh, S. (1985) *Trial of labor in the patient with prior cesarean birth*, *American Journal of Obstetrics and Gynecology*, 151: 297-304.
- Perez, P.G. (1989) *The Patient Observer: What Really Led to These Cesarean Births?*, *Birth*, 16(3): 130-9.
- Phillips, A. (1983) *Your Body, Your Baby, Your Life*, London: Routledge and Kegan Paul.
- Phillips, A. and Rakusen, J. (1978) *Our Bodies Ourselves*, Middlesex: Penguin Books Ltd.
- Phillips, R.N., Thornton, J. and Gleicher, N., (1982) *Physician Bias in Cesarean Sections*, *Journal of the American Medical Association*, 248(9): 1082-4.
- Placek, P.J., Taffel, S.M. and Moien, M. (1987) *Cesarean rate increases in 1985*, *American Journal of Public Health*, 77: 241-42.
- Placek, P.J. and Taffel, S.M. (1988) *Vaginal Birth After Cesarean (VBAC) in the 1980s*, *American Journal of Public Health*, 78: 512-15.
- Porreco, R.P. (1990) *Commentary: The Twice-Wounded Uterus*, *Birth*, 17(3): 150-1.
- Ranjan, V. (1993) *Obstetrics and the fear of litigation*, *Professional Care of Mother and Child*, 3(1): 10-12.
- Renwick, M.Y. (1991) *The Australian and New Zealand Journal of Obstetrics and Gynaecology*, 31(4): 299-304.
- Richards, M. (1979) *Perinatal morbidity and mortality in private obstetric practice*, *The Journal of Maternal and Child Health*, 4(9): 341-5.
- Richards, M.P.M. (1983) *Caesarean birth and the development of children*, *Midwife, Health Visitor and Community Nurse*, 19(9): 368-72.
- Rockenschaub, A. (1990) *Technology-free obstetrics at the Semmelweis Clinic*, *The Lancet*, 335: 977.
- Romalis, S. (1985) *Struggle between providers and recipients: the case of birth practices*, in Lewin, E. and Olesen, V. (eds) *Women, Health and Healing: Toward a New Perspective*, London: Tavistock.
- Rooks, J.P., Weatherby, N.L., Ernst, E.K.M., Stapleton, S., Rosen, D. and Rosenfield, A. (1989) *Outcomes of Care in Birth Centres*, *New England Journal of Medicine*, 321: 1804-11.



Royal College of Midwives (1991) Successful Breatfeeding, (Second Edition), London: Livingstone.

Rydhström, H., Ingemarsson, I. and Ohrlander, S. (1990) *Lack of correlation between a high caesarean section rate and improved prognosis for low-birthweight twins (<2500g)*, *British Journal of Obstetrics and Gynaecology*, 97: 229-33.

Sanchez-Ramos, L., Kaunitz, A.M., Peterson, H.B., Martinez-Schnell, B. and Thompson, R.J. (1990) *Reducing cesarean sections at a teaching hospital*, *American Journal of Obstetrics and Gynecology*, 163: 1081-8.

Sargent, C. and Stark, N. (1987) *Surgical Birth: Interpretations of Cesarean Delivery Among Private Hospital Patients and Nursing Staff*, *Social Science and Medicine*, 25(12): 1269-76.

Sargent, C. and Stark, N (1989) *Childbirth Education and Childbirth Models: Parental Perspectives on Control, Anaesthesia, and Technological Intervention in the Birth Process*, *Medical Anthropology Quarterly*, 3: 36-51.

Savage, W. (1986) *Changing attitudes to intervention*, *Nursing Times*, May 28, *Midwives Journal*: 63.

Savage, W (1988) A Savage Enquiry, London: Virago Press.

Savage, W. and Francome, C. (1993) *British caesarean section rates: have we reached a plateau?*, *British Journal of Obstetrics and Gynaecology*, 100(5): 403-6.

Seguin, L., Therrien, R., Champagne, F. and Larouche, D. (1989) *The components of women's satisfaction with maternity care*, *Birth*, 16(3): 109-13.

Shapiro, M.C., Najman, J.M., Chang, A., Keeping, J.D., Morrison, J. and Western J.S. (1983) *Information Control and the Exercise of Power in the Obstetrical Encounter*, *Social Science and Medicine*, 17(3): 139-46.

Shearer, E.L. (1989) *Commentary: Does cesarean delivery affect the parents?*, *Birth*, 16: 57-8.

Shepperd McClain, C. (1990) *The Making of a Medical Tradition: Vaginal Birth After Cesarean*, *Social Science and Medicine*, 31(2): 203-10.

Smith, A.M. (1990) *Obstetrics and technology*, *The Lancet* (letter), 336: 510-11.

Stafford, R.S. (1990) *Cesarean section use and source of payment: an analysis of California hospital discharge abstracts*, *American Journal of Public Health*, 80(3): 313-5.

Taffel, S.M., Placek, P.J. and Moien, M. (1985) *One-fifth of 1983 United States' Births by Cesarean Section*, *American Journal of Public Health*, 75: 190.

- Taffel, S.M., Placek, P.J. and Moien, M. (1990) *1988 US Cesarean-Section Rate at 24.7 Per 100 Births - A Plateau?*, *The New England Journal of Medicine*, 323(3): 199-200.
- Taffel, S.M., Placek, P.J. and Kosary, C.L. (1992) *US Cesarean Section Rates 1990: An Update*, *Birth*, 19(1): 21-2.
- Tew, M. (1991) *Safest birth attendants: recent Dutch evidence*, *Midwifery*, 7: 55-63.
- Thorp, J.A., McNitt, J.D. and Leppert, P.C. (1990) *Effects of epidural analgesia: some questions and answers*, *Birth*, 17(3): 157-62.
- Thorpe-Beeston, J.G., Banfield, P.J. and Saunders, N.J.StG. (1992) *Outcome of breech delivery at term*, *British Medical Journal*, 305: 746-7.
- Trowell, J. (1983) *Emergency caesarean section: a research study of the mother/child relationship of a group of women admitted expecting a normal vaginal delivery*, *Child Abuse and Neglect*, 7: 387.
- Trowell, J. (1986) *Emotional Effects of a Caesarean*, *Nursing Times*, May 28, *Midwives Journal*: 64.
- Trowell, J. (1989) *Psychological Effects of Lower Section Caesarean*, *Midwife, Health Visitor and Community Nurse*, 25: 22-24.
- Tulman, L.J. (1986) *Initial handling of newborn infants by vaginally and cesarean-delivered mothers*, *Nursing Research*, 35(5): 296-300.
- Tulman, L. and Fawcett, J. (1991) *Recovery from childbirth: looking back 6 months after delivery*, *Health Care for Women International*, 12(3): 341-50.
- Urquhart, D.R., Grieve, R.M.K. and Geals, M.F. (1987) *The rising caesarean section rate - a year's audit to assess the trend*, *Health Bulletin*, 45: 316-28.
- Van Alten, D., Eskes, M. and Treffers, P.E. (1989) *Midwifery in the Netherlands. The Wormerveer study; selection, mode of delivery, perinatal mortality and infant morbidity*, *British Journal of Obstetrics and Gynaecology*, 96: 656-62.
- White, E., Shy, K.K. and Daling, J.R. (1985) *An investigation of the relationship between cesarean section birth and respiratory distress syndrome of the newborn*, *American Journal of Epidemiology*, 121: 651-53.
- Wilson, J.F. (1981) *Behavioral preparation for surgery. Benefit or harm?*, *Journal of Behavioral Medicine*, 4: 79-102.
- Woodcraft, E. (1988) *Bringing the arm of the law into the delivery-room. The right not to have a Caesarean*, *The Listener*, 18.2.88: 14-15.
- World Health Organisation (WHO) (1985) *Appropriate Technology for Birth*, *The Lancet*, 2: 436-7.

APPENDIX 1

CAESAREAN QUESTIONNAIRE

To Recent Mothers

We are interested in finding out more about how women feel about having a baby by caesarean section. This research is being carried out as part of a wider international study of childbirth. With the agreement and co-operation of the Consultants and nursing staff we are asking you to complete this questionnaire. The questionnaire is anonymous and confidential. Our aim is to publish the results in a reputable medical journal.

If you have been given a caesarean more than once, please answer the questions in relation to your most recent birth.

If you need help in completing the questionnaire please ask the nursing staff.

Please return your completed questionnaire to the nursing staff. If you would like notification of when the report has been published please write your name and address on a piece of paper and return it with the questionnaire.

Thank you for your time and co-operation in answering this questionnaire.

Yours faithfully,

Helen Churchill, B.A. (Hons.), Researcher, Middlesex Polytechnic,  
Lecturer, Crewe and Alsager College of Higher Education.

Dr. Colin Francome, B.Sc., M.A., Ph.D., Senior Lecturer, Middlesex Polytechnic.

APPENDIX 2

1. Was this caesarean section planned beforehand (elective)?   
OR done as an emergency?   
(please tick the box)

2. What reason(s) did the doctors give for performing a caesarean operation? You may have been given more than one reason so please tick the answers that apply to you.

- baby too big for my pelvis
- baby was distressed (fetal distress)
- bleeding before birth
- labour taking a long time (cervix not dilating)
- baby in breech position
- baby lying across womb (transverse)
- cord prolapse
- cord around baby's neck
- baby was small for dates
- I had diabetes
- I had a previous caesarean
- Other reason (please specify).....

3. Have you been told what kind of birth to expect with your next pregnancy? Yes  No

If Yes, was this (please tick)

- you should be able to have the baby normally
- you will (probably) need another caesarean
- it will depend on the circumstances
- Other (please specify).....

How do you feel about this? (e.g. frightened pleased sad mixed other)

4. Did you ask to have a caesarean section? Yes  No

If yes, why?.....

5. At the time did you understand why a caesarean section was needed? Yes  No  Can't remember

6. Do you think the operation was done at the right time? Too Early  Right time  Too Late

7. Before the operation were you able to find out all you wanted to know about your condition and that of your nearly born baby? Yes  No

8. Were you kept informed of the treatment you were being given? Yes  No

If no, what would you like to have been told about?.....

9. Do you feel that you were kept fully informed of your baby's condition? Yes  No

If no, what would you like to have been told?.....

10. Do you consider that you suffered as a result of having a caesarean? Yes  No

If yes, why?.....

11. After the caesarean section did you feel pain in the wound more or less as expected?

More than expected  As expected  Less than expected

12. What else did you feel after the operation?

Tired  Weak  Sick  Depressed  Other  (please specify)  
.....

13. How many weeks pregnant were you when your baby was born?.....

14. During the operation were you awake  asleep

15. What type of anaesthetic were you given?

Epidural  Spinal  General

16. Did you have a friend/partner present for the birth? Yes  No   
If not, why?.....

17. How much did your baby weigh at birth?.....

18. Did you see your baby as soon as s/he was born?

Yes  No  Can't remember

If No/Can't remember - How long did you have to wait?.....  
- How did you feel about this?.....

19. Was your baby taken to Intensive Care? Yes  No

Did your baby need to be in an incubator? Yes  No

If yes, How long for? Intensive Care?..... Incubator?.....

20. Did you want to breastfeed your baby? Yes  No  Unsure

If no, was this because you - (please tick)

- changed your mind  felt too ill  
 had no milk  baby wouldn't take to breastfeeding  
 have inverted nipples  baby was ill  
 couldn't express the milk  not too keen on breastfeeding  
 other (please specify).....  
.....

21. How long do you expect to spend in hospital?.....  
Do you feel that this is (please circle) too long/too short/about right

21. Do you expect to leave the hospital before your baby? Yes  No   
If yes, how do you feel about this?.....  
.....

22. Now some questions about yourself

Age.....

Your Job or Previous Job.....

Your Partner's Job (if applicable).....

Number of times you have given birth.....

Please use the space on the back of this sheet for any comments you may have on giving birth by caesarean.

APPENDIX 3

Table 2.22: How long babies kept in Intensive Care and/or Incubators

No. OF DAYS	Up to 1	2	3	4	5	6	7	Over 1 Week	"Still there"
-----									
<i>Intensive Care</i>	2	1	0	0	0	0	0	0	3
ELECTIVE									
<i>Incubator</i>	8	2	0	0	0	1	0	0	1
-----									
<i>Intensive Care</i>	7	2	1	0	0	0	0	1	5
EMERGENCY									
<i>Incubator</i>	13	6	1	2	0	0	1	0	3
-----									
<i>Intensive Care</i>	9	3	1	0	0	0	0	1	8
TOTAL									
<i>Incubator</i>	21	8	1	2	0	1	1	0	4

APPENDIX 4

Table 2.23: WHETHER WOMEN WANTED TO BREASTFEED THEIR BABIES

	Elective		Emergency		All	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Wanted to breastfeed	62	48.1	89	54.9	151	51.9
Didn't want to breastfeed	60	46.5	62	38.3	122	41.9
Unsure about breastfeeding	7	5.4	11	6.8	18	6.2
<hr/>						
Total	129	100	162	100	291	100

*Nine women who did not answer this question are excluded from the table*

APPENDIX 5

QUOTES FROM WOMEN ABOUT  
CAESAREAN BIRTH

---

WOMEN'S ADVICE TO OTHER MOTHERS

- "1. Don't try and do too much too soon in hospital. You've to be easy on yourself so you can do more later (remember that you've had a major operation).
2. Physically once you're up and walking keep your back straight.
3. Allow yourself a good cry when you want one".

WOMEN'S ADVICE TO HOSPITAL STAFF

"As an elective caesarean it is like going in for an appendicectomy instead of to give birth, i.e. admission to ward day prior, 12 hour fasting etc. I think improvements could be made on this.

"I feel support for caesarean mothers is more important once she is home as depression is not always immediate and affects me several months after my previous caesarean sections".

"1. It should be a last resort.

"2. More information should be impressed on expectant mothers - so that they appreciate that it could happen to them".

"I think that much more should be taught about caesareans at ante-natal classes to prepare women for the after effects of a caesarean as it seems commonplace nowadays".

"I think that caesarean patients should really be given more rest and not expected to be up and around within 24 hours to be looking after baby. I felt that for the first 3 days that the baby could have been took off me at night (and bottle fed) and then left with me when she was quiet in the day (and breast fed). But the second day I was up, and doing nearly everything by the third day, which caused me stress because I couldn't quite manage because of the pain I was in. It left me feeling inadequate as a mother, and I wanted to do more".

"I would have liked to know more antenatally about different kinds of pain relief given post caesarean section. It might be helpful to consider each case individually and not just prescribe routine painkillers. Otherwise I was impressed by the standard of care and information given to me".

"I have always been scared of it. The fear is still there. It is best if used only in emergency cases".

"Emergency section decisions should be made as early as possible, as a long period in labour beforehand is very traumatic".

"The midwives do a much better job than any doctor".



"The most important thing for recovery afterwards is sleep and you don't get any on a post-natal ward with up to 10 other mums and babies. Caesarean patients should have their own rooms/side wards for recovery as I did after my first one".

#### THE TIMING OF THE OPERATION

"The caesarean didn't bother me as much as the long labour beforehand".

"I thought the operation was done too late because this is a small unit and there are not staff to perform the operation on site. Two hours is a long time to wait until all the people arrive".

"I went into labour in the early hours of the morning and it was 8 hours before the operation was performed, by which time I was 7cm dilated and in a lot of discomfort".

"I think birth by caesarean should be allowed sooner rather than later i.e. if you are not dilating properly and if labour is too long. Why wait until baby and mother are in distress all for the sake of giving the mother the option of a natural birth. If a mother demands a section - she of all people should know how things are progressing - why delay matters? What is so wonderful about a natural birth? Birth by section (epidural) is quick, partners can attend and it's all over in minutes".

#### INFORMATION THAT WOMEN WOULD HAVE LIKED ABOUT THEIR BABIES

Women would have likes to know:

"That she was getting distressed".

"Why baby's heartrate dropped."

"More information immediately after birth i.e. weight, colour - he was positively purple at first! and I would have liked him to suckle immediately".

"That she had tubes and oxygen".

"Everything".

"At what risk the baby was under having a caesarean birth".

"How baby was reacting to ventouse treatment and heart rate".

Others preferred not to be informed:

"I was in too much distress, it would have upset me more if I knew baby was distressed".

"I was glad afterwards NOT to be told full details until next day".

### WOMEN'S COMMENTS ABOUT THE ATTITUDE OF HOSPITAL STAFF

"The staff were very supportive and were always reassuring me throughout the whole birth because it was my first birth, and having a hard time as well. If I have to have a caesarean again I would hope that I would be fortunate enough to have similar staff as I had for my first".

"I found the staff in the theatre very helpful and friendly which was very satisfying and made things a lot easier".

"I had no worries about giving birth by caesarean, but I am sad that I can not have a normal birth. Everyone was very helpful before and during the operation and I was kept very well informed about myself and my baby".

"An emergency section is very frightening because you are not prepared for it. But if the hospital you are in has good and caring staff where nothing is too much, it makes the difference on your outlook of things. As someone who was totally frightened of hospitals and their staff, I must say that this hospital has one hell of a good set of doctors, nurses, midwives etc. whose praises I couldn't shout high enough".

"I found elective caesarean much better than emergency caesarean at end of previous pregnancy. I felt I could cope better after the event. The relaxed atmosphere of the theatre was good and should be encouraged. It did not at any time seem to interfere with it's smooth and efficient running".

"The third section was the best of the lot, much more straight forward - and went according to plan. The theatre staff were a tremendous help talking me through the operation. After, I felt on top of the world and very relaxed".

"My stay here has been second to none. The care and devotion from all staff has been first class".

"Everyone in the labour ward and on Ward 23 were most helpful to me both during labour and with all the after care".

"Two years ago I had a 'semi-emergency' section under general anaesthetic in a different hospital. I was not offered an epidural and even had I had one my husband would not have been allowed to stay with me. So bad did I feel the experience and recovery to have been that I changed to a hospital 20 miles further away to avoid a repetition. Although the outcome was essentially the same, i.e. caesarean, the experience was completely different - everyone seemed to be 'on my side' this time, and I was quite happy about the ultimate decision, hence I feel I am recovering much better. I think the two crucial factors in this are :

- i) the attitude of the staff on the labour ward, and
- ii) epidural anaesthesia, which enabled both me and my husband to be present for the birth".

"Having had three sections, the first being emergency by general anaesthetic, not very pleasant, second and third spinal and a great experience. I think all the information and advice you can be given by staff, doctors etc. helps immensely with both the operation and what the after-effects will be. This being so, there would be no great shocks. I was given brilliant advice and care, so all my experiences have been very good".

"I felt frightened but confident at the same time. The theatre staff made me feel very special, I had lots of attention. I was overwhelmed with gratitude when they delivered our baby".

"I felt quite happy about this last section. The operation went fine and I have felt very well through the recovery stage. I have received very good support from the staff and this I feel is most important. They have given me the help when I have asked and have let me do things in my own time".

"The atmosphere was very relaxed when they took me up to theatre, even managed to get me laughing. My husband and I found this a great help".

"I liked the relaxed, casual manner in theatre".

"Everyone was very helpful before and during the operation and I was kept very well informed about myself and my baby".

#### WHY WOMEN DID NOT HAVE A FRIEND/PARTNER PRESENT FOR THE BIRTH

Some women were not accompanied during delivery because:

"squeemish husband, medical staff very supportive".

"he didn't feel he could have coped".

"husband stayed outside waiting".

"doctor didn't approve of husbands being present".

"husband too nervous".

"my partner was too scared".

"never offered chance due to general anaesthetic".

"because not allowed to with having general".

"because I was asleep no point".

"not allowed".

"he didn't wish to be".

"waited outside theatre".

"they wouldn't let him in the room, he stayed outside".

"my husband couldn't get time off work".

"due to general anaesthetic".

"I didn't want anyone there".

"had general anaesthetic".

"was not allowed".

"due to general anaesthetic".

"because of emergency".

#### BEING PREPARED FOR CAESAREAN BIRTH

"It was a wonderful experience. Because it was elective we were able to organise for the birth, my partner was present and prepared well. He was able to organise leave to be with us, this would have been difficult under less certain circumstances".

"I wished it could be explained about a caesarean birth earlier in pregnancy".

"Caesareans should be termed as normal operations not minor operations. All along I thought a caesarean wasn't a big deal. I was told how it is done but not how you feel afterwards". (This woman made specific reference to the amount of pain encountered after the operation).

"It would have been better if I was more prepared for it".

"With the first caesarean there was great disappointment and feeling that I had suffered a labour for nothing. This time I was fairly optimistic about delivering normally but knew there was the possibility of a second caesarean. Therefore I don't feel so let down this time".

#### ELECTIVE VERSUS EMERGENCY CAESAREANS

"A caesarean section was queried throughout my pregnancy. An X-ray of my pelvis was taken as my pelvis was small. I feel I should have had a planned section and if I had I would have had an epidural. Instead I was made to go through full labour and then rushed to theatre for a section. My husband and I feel that we have both missed out on the birth of our baby".

"I was pleased to be able to have this baby by elective caesarean especially as I was awake during the operation. It was quite an experience - which in some ways made up for not being able to deliver in the normal way. I think the theatre team were marvellous throughout the entire proceedings".

"I have three children, the first delivered by ventouse after a long labour, the second by emergency section and the third by elective. If I had to have one of them again it would definitely be the elective caesarean as I found the whole experience thoroughly rewarding".

"I feel a lot better after a planned caesarean than after having an emergency caesarean (1st birth) after spending a long time in labour. If ever I was to become pregnant again I think I would prefer to have a planned caesarean".

"Obviously because I had an emergency caesarean, after-effects were not known, Presumably these are fully discussed with a planned caesarean. I felt unable to move, cuddle baby, because I was weak, tired and upset. I felt quite ill and in pain".

"My first baby was born by emergency caesarean which was a very traumatic experience and I experienced a much slower recovery rate than the second caesarean which was planned and happened without a long labour beforehand, making for a quicker recovery generally".

#### WOMEN'S COMMENTS ON THE TYPE OF ANAESTHESIA

"I was disappointed at the effects the epidural had on me. I felt ill with head, neck pains and sickness so much so that on the third day after it I had another epidural to form a blood clot. This was successful in that those pains were cured but I am now left with a painful lower back".

"I found the caesarean section to be less of an ordeal that I'd anticipated. It avoided a long, hard labour which may have ended as a section in any case. Spinal anaesthesia has the beauty of both worlds in that you avoid labour pains and are fully alert during the operation".

"Listening to some other mothers who gave birth naturally I think I was lucky to have a spinal section with no pain and it was all over in one hour".

"Obviously any woman would prefer a normal delivery but an elective section using a spinal or epidural anaesthetic is the next best thing. A caesarean birth can be a very positive and moving experience and with post operative pain relief can easily be coped with. I would, however, endorse this hospital's policy of placing caesarean patients in single bedded cubicles".

"With having a General I feel I missed out of the first moments and afterwards I did not expect the loss of blood clots which I found frightening. But I was pleased with the care I have been given".

"I was very pleased with the epidural and the fact that this was an elective section. I would opt for this method in future rather than a general anaesthetic which I found extremely painful afterwards".

"Having had an epidural anaesthesia I would recommend it. I think it should be available to all mothers, after effects are minimal and ambulation I found much easier".

"If I could have any more children I would not hesitate to have an epidural anaesthetic for a caesarean section. It was not as uncomfortable an operation as I first thought".

"I would have been far unhappier about it if I had to be asleep for the operation. As I was awake with an epidural it was more acceptable".

"It's much better if you stay awake there's no more pain and you get to see your baby straight away".

"Although I understand the well-being of my baby was of paramount importance, I feel very disappointed that I was not awake for the birth, and that my partner was not with me".

"The next time I would like to be booked in for the operation and be prepared. I would also prefer a general anaesthetic as I went into shock with the epidural. Apart from that the staff were excellent and I would have another caesarean".

"When I had my first caesarean I was frightened to be awake but now that I know what it was like being awake with the second, I would have loved to have been awake the first time. It was a great feeling seeing the baby straight away".

"This is the second time by caesarean. The first was by general anaesthetic. Last time I felt cheated that I missed so much and did not see my baby properly until the next day. This time by spinal block was wonderful, we both saw him straight away and did not miss anything".

"I prefer spinal to the general anaesthetic. Recovery is much quicker and easier".

"My first caesarean was in 1981 after a long labour which did not progress and was done under general. Things have improved greatly in ten years and being awake this time made all the difference".

"I found a planned section with epidural a far more pleasant and positive experience than my first section (which was an emergency with general anaesthetic after a very long labour). My first section was a distressing and frightening experience and one which I felt completely unprepared for".

"Everyone was very helpful, telling me what was going on. I felt very secure about being awake. It was a lot easier after the baby was born. Epidurals are a lot better than a General as you don't seem to be in much pain. My partner was able to be there which is a very good thing as they also know what's happening. The one big plus about epidurals is that you see your baby straight away which for me was the most emotional thing that I have ever encountered".

"After having my first baby by emergency caesarean section under general anaesthetic I felt depressed and upset as I felt I had missed out a lot by not being awake during the birth. This time I had a much more pleasurable experience due to the fact that I was awake to see what was going on, I was able to see my baby straight after he was born and my husband was allowed in this time".

"I found the epidural better as you can see baby straight away. The first time I lost that bond with the baby, I didn't feel he was mine".

"Giving birth by caesarean with a spinal anaesthetic was just as exciting and emotional for my husband and I as a normal delivery but without the pain. (This woman has not experienced natural birth).

"I would advise people to have epidural if they have to have a caesarean section because you are awake when baby is born and you can see baby straight away".

"The epidural was absolutely brilliant because I could feel him being born so felt I had participated. It was wonderful to be able to have my husband with me in theatre and to be talked through the whole thing - wouldn't have missed it for anything".

"I much preferred the caesarean section by spinal anaesthetic as I was able to hold the baby immediately and the after-effects of the anaesthetic were minimal".

"I found the spinal block operation fascinating and was awake to see the baby delivered immediately. It was also nice to know that my husband was there to see the birth and that I was able to talk to him right through the operation".

"My first section was done under a general anaesthetic and second under spinal. I felt so much better and brighter in myself after the spinal. I could still feel involved in the birth, have my partner present and see my baby as soon as she was born".

"I am pleased that I was able to have this operation performed under epidural rather than a general anaesthetic. Thus allowing me to see the baby earlier and be part of the birth process - or witness to it".

"I have had two types of caesarean anaesthetic, general and spinal. I must say with the spinal the after effects are a lot easier to deal with due to the fact that you are more alert and there are less side effects from the anaesthetic".

"I found having a caesarean by epidural more stressful (my first baby was emergency section) but it was lovely to see the baby straight away".

"I was very pleased with the epidural and the fact that this was an elective section. I would opt for this method in future rather than a general anaesthetic which I found extremely painful afterwards".

"Being an elective section I found I was much better prepared physically and mentally than my first pregnancy which ended with an emergency section. Recovery from an elective section was speedier and not as traumatic to both myself and baby".

#### COMMENTS ABOUT THE PAIN OF THE OPERATION

"I had a 14 hour labour (2 hours pushing) and have at this stage endured a further week of pain and discomfort. I cannot sit down or stand with the baby in my arms, I have to have him reached to me - very frustrating".

"I think it is the quickest way to give birth but is extremely painful afterwards".

"The section was fine but I experienced more pain than expected when the epidural anaesthetic was left in post operation. I eventually asked for pain relief injections. I was disappointed in this as I had expected the epidural to provide enough relief when topped up".

"The first section was very painful and I was shocked at the severity of it. With the second one I was a bit wary because I knew of the pain I was in with the first. But it was nowhere near as bad. I felt great on the first day, but suffered a lot more with wind. I will not be having any more".

"I would much prefer a normal birth as the pain you have is over. But with caesarean you seem to have quite a bit of pain and discomfort for quite a while after. Also it takes you a lot longer to get back to normal which I shall find very hard".

"Much less enjoyable and more painful than a natural birth".

In answer to a question asking women how they felt they had suffered, they said:

"Because of the pain".

"My natural labour was less painful".

"The first couple of days were uncomfortable".

"More pain and longer stay in hospital".

"Slower and more painful recovery".

"Because of not being able to see my baby properly as I was very sore and couldn't manoeuvre the same".

"Added pain".

"The pain after and inability to move and deal with your baby straight away".



"Painful to move around afterwards".

"Pain mainly. Longer stay in hospital. Takes much longer to recover than normal delivery".

"Very sore afterwards".

"Emotionally and physical pain".

"The after pain is worse than a natural delivery plus the feeling of helplessness".

"Pain while wound healing, depression, permanent scar on my body".

#### COMMENTS ABOUT THE LENGTHY RECOVERY PERIOD

"I am satisfied my caesareans were necessary for the safety of the babies in both instances. However it must surely be the worst way to give birth as just when you need to be fit to cope with a new baby, you are coping with a major operation. I found it terribly frustrating".

"I feel relieved that such intervention is possible as it does obviously save the lives of newborn babies. However it is upsetting when for the first days or so you have to rely on the midwives and other staff so much for the care of your newborn".

Having given birth normally the first time, this section was certainly different and I would rather have a normal birth because you can move around a lot more soon after, where with a section moving is difficult at first".

"The only drawback I would say is that it is extremely difficult to cough and it does involve a longer stay in hospital than a normal birth".

#### WANTING A NATURAL BIRTH

"The caesarean felt safer for me and baby at the time, although I am still upset that I was not able to see natural birth through".

"You can't class caesarean as giving birth, I don't feel as if I have really had a baby".

"I lost out on being able to deliver normally".

"I would have liked to have a normal delivery however the caesarean was a life saving operation for both myself and baby".

"I had no worries about giving birth by caesarean but I am sad that I cannot have a normal birth".

### EFFECTS OF CAESAREAN BIRTH ON BONDING

"The first caesarean I had was in '86 after 12 hours I had only dilated 3cm. I had a general anaesthetic which meant I didn't see my baby and my visitors could tell me what she looked like. I was very upset by this so they brought me her to look at during the night. It took me a few months to form a loving bond. This time I feel very different as I saw baby immediately the bond has been there from the first moment".

"The initial bonding feelings between Mum and baby seem to have taken longer to take place".

"I feel it was necessary for the health of my baby, but I feel I missed those precious first moments of life. I also feel that having a caesarean limits the care you can give your baby".

"I feel that caesarean takes away the vital importance of the bonding between mother and baby in the first two days".

### WHY WOMEN FELT THAT THEY HAD SUFFERED

"Myself and other women who have had babies by caesareans feel very annoyed when people who had normal deliveries think we were lucky and had an 'easy way out' as recovery is very long and painful. It is many months before you feel well again. Also the stomach never returns to its pre-pregnancy state, there is always a fold of skin which hangs over the scar".

"It is annoying that other mums think you've had an easy time without the labour etc., but it is really hard getting yourself pulled together afterwards".

"I felt a bit frightened at first but worth it when seen baby".

"Caesarean is better than giving birth but not as pleasant afterwards".

"I felt okay at the time, but very sore afterwards, although I miss not having baby with me. Don't know how I would have coped if they had given me baby the next day, I was too sore, very weak and tired".

"Giving birth by section is really no hardship. Never having had a vaginal delivery I don't feel I missed anything. The only down side is the infection rate. I have had infections after both caesareans which was the one thing to take the shine off the first weeks home with baby".

"Although disappointed that I had to have a caesarean for my first baby I understood that as he was a 10 pound breech his welfare was my first priority and I was actually relieved to have a caesarean (to avoid possible brain damage etc.) With my second pregnancy I had hoped for a normal delivery. The consultant in the interest of safety made it clear that it could only be feasible if the baby weighed less than 9 pounds and was deeply engaged. I welcomed this sporting chance. However, even after going overdue it ended caesarean".

"I didn't realise that the second section would be worse to get over than the first".

"I knew nothing about a caesarean birth and there wasn't enough time to explain the procedure".

"After a trouble free pregnancy it is difficult to accept being 'invalid' and dependent on others".

"I think the scar tissue may cause future problems".

"I had hoped to recover from this birth much more quickly than last time, whereas now presumably it will be as before, but harder, thanks to a two-year old!"

"I lost a lot of blood and am only too grateful the Consultant and his team for successfully completing my operation".

"I was not able to care for my baby as quickly as I would have liked due to the after effects".

"In so far as the stay in hospital was longer, I missed my family. Also being less physically able after delivery i.e. to lift, move etc. ".

Some women felt that they had suffered:

"because I missed giving birth naturally".

"Emotionally because I wanted to do it naturally by myself with little pain relief".

"Emotionally, pride".

"Problems with baby's breathing due to the section being performed".

"With headaches as a result of the spinal".

"The wind and the drains removal".

"Psychologically and physically".

"Physically and mentally, but baby was suffering so I can understand that my baby needed a caesarean".

"Because I had a young daughter already at home whom I hadn't seen for days".

"Because caesarean section is a fairly major operation you are bound to suffer more".

"Not being prepared and left too long on my own".

"Not mobile - too reliant on staff".

"Couldn't see my baby as she was premature and in intensive care".

#### POSITIVE ASPECTS OF CAESAREAN BIRTH

"Having a caesarean was a lot more comfortable than having forceps during and after birth".

"At first I thought a second caesarean was unnecessary but after talking with the doctors I realised the risks involved to the baby and myself (because my pelvis was too small) were far too great to take".

"I think that many women feel as though they have failed if they have to give birth by caesarean. But I definitely don't find this to be true as the love you have for your baby is just as strong with a caesarean as with a vaginal birth".

"I was very impressed by what a beautiful experience a caesarean could be. I think I would have been more disappointed if I had not been allowed such a full trial of labour, but having experienced this, the caesarean was a very enjoyable climax to the labour". (Spinal anaesthesia).

"Rather pleasant, passed the time with a wonderful result (my son). Can't think of a better way to spend a Monday morning!"

"Painful afterwards, unable to care for baby and other children as well as hoped for. Complications of wound infection are a set back. But thank goodness caesarean sections are available when one cannot deliver vaginally".

"I would not opt for a caesarean delivery if another choice had been available - but as my baby could only be delivered this way then it was inevitable".

"I was very reluctant to have a caesarean but decided towards the end of a 16 hour labour it was the sensible option. There is some discomfort but I probably would have got that any way with a normal delivery. I am very pleased with the size and position of scar, it is really different to what I expected".

"If a caesarean was not done my daughter would never have been born normally except at huge risk to her and myself".

"It is not that bad, it is painful, but very worth it".

"I had a very quick labour, which distressed baby, after four hours of 5 min. contractions I was very relieved to finish the birth by caesarean. Staff and doctors were marvellous during my 5 day stay".

"The caesarean was done professionally and I was scared at first but once it was all over the relief was unpainful. Why? Because what came afterwards was worth all the pain anybody could have given me".

"As soon as they said you will have to have a section, I became very upset and cried a lot, even though I thoroughly understood the circumstances and knew it was for the very best for my baby and me. But as soon as I came round and saw my husband with my beautiful son I was glad it was all over and glad I had a section. I DON'T REGRET IT ONE BIT AND NEITHER DOES MY HUSBAND". (Original emphasis).

"I feel that the baby is under no stress, it's better for the baby".

"It was unavoidable and in the best interests of the baby. Whilst it will take a while to recover it is comforting to know the baby is now safe and well".

"I had previously been given the option of caesarean section and decided against it. However, I do not regret having had a section (except for the discomfort I'm feeling) and do not feel cheated of a vaginal delivery".

"The experience wasn't half as bad as I thought it would be and I wouldn't hesitate at all to have another".

"The first time you feel cheated but after three you look forward to it and not having labour pains".

"Not as bad as people think providing you accept that its a full-scale operation. I made a complete recovery from the first and expect to do the same again. Scarring is minimal and hidden and baby is not distressed".

"I thought that it was a great way to give birth and if I had any more I would like to have it again. I also thought that there was no pain during my section and very little after".

"The operation wasn't as bad as I expected. Did a lot of worrying for nothing".

"Having a caesarean was a lot more comfortable than having forceps during and after birth".

"Giving birth by section is really no hardship. Never having had a vaginal delivery I don't feel I missed anything. The only down side is the infection rate. I have had infections after both caesareans which was the one thing to take the shine off the first weeks home with baby".

"I suffered physically and mentally but baby was suffering so I can understand that my baby needed a caesarean".

## GLOSSARY

---

**Abdominal Birth** Delivery of the baby via the abdomen, i.e. caesarean section, rather than the usual route along the vagina.

**Attitude** Emotional and reasoned (or learned) response made by an individual towards an object, person or situation. The standpoint taken enables the individual to respond to other related or similar situations, objects or people in a consistent way. An attitude of the medical profession, for example, may mean that all patients with similar conditions or symptoms are treated in the same way. This may be positive, in that it means patients can be treated quickly and efficiently, or it may be negative, in that individual differences and needs are not taken into consideration.

**Conflict** I have used the term 'conflict' to refer to the opposing and often contradictory attitudes, opinions and experiences of the different groups involved in maternity services. The two main groups examined in this study being the medical profession as providers of maternity services and women as consumers of those services.

**Depression** I have not used any psychological measures of depression in this study, although such measures may have been included in the work of other researchers cited here. The current study utilised a subjective interpretation of depression, analysing the self-reported feelings of women taking part in the survey.

**Doctor/Woman relationship** I have used this term as opposed to doctor/patient relationship in order to differentiate the gender-specific aspects of the relationship which characterise the different experiences of women, as opposed to men, in their interactions with the medical profession.

**Elective (caesarean)** A caesarean performed before the onset of labour, usually pre-planned because of a foreseen condition such as the small size of the pelvis.

**Epidural Anaesthesia** A form of local (regional) anaesthesia used to numb the abdomen for routine pain relief during labour and total pain relief during caesarean. The woman is awake for the operation when this type of anaesthesia is used.

**Emergency (caesarean)** A caesarean performed once labour has begun, not necessarily because of an 'emergency' in the conventional sense, but usually because of an unforeseen event or condition arising during labour.

**General Anaesthesia** A combination of drugs used to anaesthetise the whole of the body by producing a state of unconsciousness.

**Infant Mortality** Statistical measure of the number of deaths of infants during or just after birth, or within the first year of life.

**Litigation** The bringing of a lawsuit against a person. With reference to caesarean section 'fear of litigation' is used to describe the rationale for actions of obstetricians when operations are performed because the practitioner is afraid of being sued in the event of an unsuccessful outcome of childbirth.

**Medical ethos** The collection of attitudes, character, disposition and nature of the medical profession.

**Medical Fraternity** I have used this term to encapsulate the male-dominated and exclusive nature of the medical profession, as a group of people joined together on a principle of brotherhood, similar to the ideology of the Church, rather than being based on social or political ideologies.

**Medical Model** The shape or form of the group of attitudes which dominate the medical profession. The term is used particularly with reference to viewing illness as an isolated incident affecting a particular part of the body which can be treated in order to return the organism to as normal a state as possible. Rather than taking into consideration social and environmental variables which affect health. In terms of obstetrics the medical model is associated with a view of pregnancy and childbirth as an illness requiring medical attention and, more often than not, treatment.

**Medical variables** Medical indications for caesarean section, i.e. those medically defined conditions of the woman or the infant that are used to indicate the necessity of a caesarean operation. Such variables may be 'absolute' or 'relative'. Absolute medical variables are those conditions and situation where the only safe option for either the mother or the baby, or both, is to have a caesarean, e.g. disproportion between the size of the woman's pelvis and the size of the baby. Relative indications are more loosely defined conditions which may or may not require a caesarean such as dystocia and foetal distress.

**Neonatal** During the first month of life.

**Non-medical variables** Variables affecting the number of caesarean being performed but not based on an assessment of medical necessity. Such variables include e.g. consultants preference, fear of litigation and economic or staffing considerations.

**Objective response** For the purpose of this study, this term has been used to refer to an assessment of women's reactions to caesarean section, particularly in relation to their suffering, based on their responses to questions about e.g. the amount of pain they experienced, separation from their babies, support during delivery etc.

**Pain** The concept of pain used in this study refers to women's subjective perception of the amount of physical pain they experienced as a result of the caesarean operation. However, it is suggested in this work that women's experience of pain may be affected by psycho-social considerations such as not being adequately prepared for caesarean birth and expecting the operation to be relatively pain-free as compared to vaginal delivery.

**Perinatal**                    During the period from the twenty-fourth week of pregnancy to seven days after birth.

**Perinatal Mortality Rate**        The rate (usually expressed per 1,000) of babies dying between the twenty-fourth week of pregnancy and seven days after birth.

**Power**                    The ability/capacity to influence the behaviour of others, either directly, e.g. by being in a position to tell others what is best for them, or indirectly by having influence over policies and services provided for others.

**Primipara(s)**            Woman (women) giving birth for the first time.

**Spinal Block**            A form of local (regional) anaesthesia whereby an injection is given into the cerebrospinal fluid to numb the abdomen for a caesarean. The woman is awake during the operation when this type of anaesthetic is used.

**Subjective response**        The personal response of women taking part in the survey based on their own perceptions of their experiences.