



National Library
of Canada

Bibliothèque nationale
du Canada

Canadian Theses Service

Service des thèses canadiennes

Ottawa, Canada
K1A 0N4

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

The Role of Imagery in the
Positive Birth Experience: An Exploratory Study

MASTERS THESIS

Presented to the Department of Kinanthropology
in Partial Fulfillment of the Requirements for the
Degree of Master of Science

by

Anne Pitman

Department of Kinanthropology
University of Ottawa



Anne Pitman, Ottawa, Canada, 1990



National Library
of Canada

Bibliothèque nationale
du Canada

Canadian Theses Service Service des thèses canadiennes

Ottawa, Canada
K1A 0N4

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-60059-4



UNIVERSITÉ D'OTTAWA
UNIVERSITY OF OTTAWA

Acknowledgements

This thesis was fueled by the energy and support of many people. First I wish to thank my academic advisor, Terry Orlick, for his help and patience and for supporting me in my decision to follow a different path.

I would like to acknowledge all of the women who participated in this study. Their courage in making a VBAC their reality has inspired me to complete this work. I would like to extend my warm thanks to Caroline Sufrin and Pam Graydon for welcoming this study and lending their time and support.

I am grateful for the patience of John Weekes, who helped set up the questionnaire, and Peter Aubin and J.P. Dionne, who helped in the final analysis. Thanks also to Kevin Cornell, my personal computer consultant.

In a desperate fight to remain grounded, I wish to thank those who helped; Kelly Tobin and her growing baby, who sent me crystals, love and healing woman-energy, and Teresa Pitman, who in addition to her helpful comments on this thesis, listened and advised on every mothering crisis. Many thanks also to the Pitman and Davidson families for their support and words of encouragement.

I also wish to acknowledge Catherine Zuro, who not only helped me with the data analysis, the write-up and about a million picky details, but also supported me, worried about me, and made me promise to never do my PHD. Many thanks also to Jeremy for giving me an extra week of his mother's focus and in his birth, reminded me that there is more to this life than Msc.

This thesis would not have been possible without the warm and patient support of Lynn MacPhee Davidson and Pegi Newlands. In addition to their daily loving care for Jared, they gave me a perfect balance of sympathy and encouragement. Many thanks as well to Adam, Emma and Talia for helping Jared to help me work.

Finally I must thank my family: my son, Jared, for periodically taking me by the hand into his world and allowing me to escape my concrete existence, if only for a sweet moment; And Jamie, my partner, for helping me find the numbers and the words, and for believing in me. Words cannot fully express my gratitude to Jamie and Jared for their support this year. This thesis is dedicated to them.

Table of Contents

	<u>Page</u>
Acknowledgements.....	1
Abstract.....	3
Introduction.....	4
Purpose of the Study.....	8
Method.....	9
Subjects.....	9
Questionnaire Development.....	10
Design.....	12
Procedure.....	13
Data Analysis.....	13
Quantitative Analysis.....	13
Qualitative Analysis.....	13
Results.....	14
Quantitative Analysis.....	14
Qualitative Analysis.....	17
Vaginal Birth Imagery.....	17
Repeat Cesarean Imagery.....	20
Imagery During Actual VBAC Birth.....	22
Healing Imagery.....	24
"Uplifting" Imagery.....	25
Augmenting Imagery.....	26
Block Point Imagery.....	27
Mental Links to a Positive Birth Experience.....	27
Discussion.....	28
References.....	33
Table 1: McNemar Scores for Incidence of Imagery.....	36
Table 2: Helpfulness Ratings of Imagery.....	37
Table 3: Quantity of Vaginal and Repeat Cesarean Imagery.....	38
Table 4: Pre-Cesarean and Pre-VBAC Imagery Comparisons.....	39
Table 5: Quality of Vaginal and Repeat Cesarean Imagery.....	40
Table 6: Practical Changes in Birth Environment.....	41
Appendix A: Cover Letter for Questionnaire.....	42
Appendix B: VBAC Imagery Questionnaire.....	45
Appendix C: Thesis Proposal.....	58

Abstract

The purpose of the present study was to explore the role of imagery in a positive birth experience, specifically with respect to the experience of vaginal birth after cesarean (VBAC). The quantity and quality of imagery used and its perceived value were explored. A VBAC Imagery Questionnaire was developed and sent to Ontario women known to have had a VBAC. Forty two women who had experienced an unwanted cesarean for dystocia (a doctor's diagnosis during a "slow" or "halted" labor) and who met additional criteria were selected. The following types of imagery were explored; healing imagery, vaginal birth imagery, repeat cesarean imagery, "block point" imagery, "augmenting" imagery, other "uplifting" imagery and imagery experienced during the actual VBAC birth. Women experienced substantial amounts of vivid positive imagery in preparing for a VBAC and during the VBAC itself. The most common types of imagery experienced were vaginal birth imagery, other "uplifting" imagery and imagery experienced during the actual VBAC birth. Many women described their images as very positive and absorbing, and women rated all types of imagery as very helpful in achieving their vaginal birth after cesarean. Imagery was rated by women to be as helpful in the VBAC experience as vital changes made in health care professionals and location of labor and birth. Four mental links to a positive birth experiences emerged with respect to positive imagery: 1) during their pregnancy, most women visualized their goal, a vaginal birth; 2) most women experienced other "uplifting" imagery that made them feel competent, confident and in contact with their baby; 3) they created a birthing environment in which this goal could be achieved; 4) during the VBAC birth, they stayed focused on positive, vivid, and emotional images of their goal, yet remained open to spontaneous birthing images. Recommendations were made for prenatal programs in terms of enhancing the quality of the birthing imagery and employing the four mental links to a positive birth experience.

Introduction

Sport psychology recognizes the close connection between mind and body, between mental activity and physical activity, and research in this field examines this inter-relationship: the psychological nature of physical activity. Past research has uncovered a number of psychological techniques which enhance physical performance and assist athletes and others involved in physical activities in reaching their goals. One such psychological technique is "imagery" or "visualization", defined as pictures, sounds, feelings, tastes, and smells you construct rather than experience directly through your senses (Hutchinson, 1985, p.32). Most sources which address the benefits of imagery recommend "full-bodied imaging" (Hutchinson, 1985) or "multi-modality visualization" (Peterson and Mehl, 1984). This is guided imagery that uses all of one's senses.

Although sport psychology literature has made reference to the importance of imagery in athletic practice and competition (Feltz & Landers, 1983; Hale, 1982; Mahoney & Avenier, 1977; Mumford and Hall, 1985; Nideffer, 1985; Orlick, 1986; Richardson, 1967; Suinn, 1972; Vealey, 1986; Unestahl, 1982), only recently has research shown a direct correlation between quality imagery training and Olympic achievement (Orlick and Partington, 1988). As a result of the research on imagery, sport psychologists have a better knowledge of the scope of imagery used by top athletes, both in terms of quantity and quality.

It is believed that a greater depth of understanding with respect to the role of imagery can be gained by studying various types of "performers" in a variety of situations. In particular, people who have performance demands similar to athletes and who may have an affinity for imagery. An interesting "performance" to study in this regard would be the process of birth. Specifically, women who have experienced an unwanted cesarean birth (a perceived negative physical and psychological event), and subsequently have a positive natural birth, a vaginal birth after cesarean (VBAC). Similar to elite athletes, cesarean mothers working toward a VBAC have chosen a different path than is commonly expected of them, and few succeed in achieving their goal. Both athletes and cesarean mothers must be highly committed; they must take charge and create a situation in which their goals can be reached, both in psychological and practical terms.

Quite apart from the similarity in performance demands between athletes and VBAC mothers, two factors suggest that the study of imagery in the VBAC experience may be beneficial and may aid in a more global understanding of how imagery facilitates exceptional performance. Firstly, given the importance of the VBAC birth to these women, cesarean mothers are likely to do extensive amounts of psychological preparation, possibly including imagery. Secondly, pregnant and labouring women may experience (perhaps due to a change in brain activity) very detailed or unique images (Bates & Turner, 1985; Jones, 1987; Peterson & Mehl, 1984).

It is important to recognize the psychological demands of a cesarean and VBAC. After an unwanted cesarean, most cesarean mothers feel a wide range of negative emotions. Women feel loss of control, fear, guilt, anxiety and dissatisfaction in the failure of their goals and expectations (Marut and Mercer, 1979). Other researchers have found that women feel regret, frustration, shock, grief, shame, and have a low sense of self esteem and feelings of failure (Cox and Smith, 1982; Laufer et al., 1987). Erb, Hill and Houston (1983) found some of these negative feelings may be strongest 7-12 months after the cesarean.

When cesarean mothers become pregnant again, they are either scheduled for a repeat cesarean or they attempt a vaginal birth (VBAC). A large majority of these women, 95% in the U.S. (Notzon et al., 1987) and 92.6% in Ontario (VBAC Association of Ontario, 1988) end up with a repeat cesarean. Women who choose to attempt a VBAC are swimming against the current of social and medical expectations. In this country most hospitals, doctors and often friends and family accept the dictum "once a cesarean, always a cesarean". As one woman noted with regard to the tremendous preparation a VBAC requires: "For us it wasn't so much third time lucky as third time prepared" (VBAC Assoc. of Ont. Newsletter, 1987). To accomplish a VBAC, one must be "informed, educated and determined" (Sweet, 1983, p.72). A cesarean mother must work very hard to provide the optimal environment and psychological birthing conditions in order to achieve a VBAC.

The psychological struggle to attain a VBAC may be amplified for women whose primary cesarean was performed for dystocia, a diagnosis defined as a "difficult labor" (Schlater and Pernoll, 1987, p.441) and in practice a labor which has slowed or stopped.

Dystocia encompasses two relative indications; CPD (cephalopelvic disproportion and fetopelvic disproportion) and "failure to progress" (prolonged abnormal labor and uterine inertia). CPD is defined as a condition where the baby's head or whole body is said to be too large to pass through the mother's pelvis (Schlater & Pernoll, 1987). However, diagnosis of CPD is not as simple as the definition appears. Because of the flexibility of the woman's pelvis and the ability of the baby's head to mould and be compressed, true CPD is much rarer than the statistics would indicate. Cohen and Estner (1984) maintain that CPD "is an easy diagnosis for a physician to make when your baby refuses to simply fall out of you" (p.17). Shearer (1982) writes "all CPD means today is that the baby did not get out in the time that the doctor thought s/he would" (p.33). A cesarean for "failure to progress" is ordered when a physician believes a woman's labor is not progressing at the "normal rate". The "normal" time range is based on experiments by Emmanuel Friedman. He analysed "normal" labors and found the average length of first labor was 12-14 hours (Korte and Scaer, 1984, p.147). If labor exceeds this limit, it may be perceived as "abnormally" long and may, therefore, lead to a cesarean. Although the efficacy of this diagnosis is questionable (Cohen and Estner, 1984; Richards, 1987), the psychological significance of a cesarean for dystocia is that there may be a greater inclination for a woman to regard the cesarean as her failure rather than resulting from some situation beyond her control or responsibility.

Cesarean mothers who have been "diagnosed" with dystocia may clearly remember how their bodies "failed" to progress or they may carry with them a belief in the "inadequacy" of their body (CPD). The feelings of personal failure and lack of confidence regarding birthing may be amplified for women whose cesarean was performed due to dystocia:

Telling a woman that her pelvis is so deformed, so inadequate, has deeply psychologically destructive implications. A woman not only carries the feeling of inadequacy with her into her next birth, she carries it with her into her feelings about herself as a mother, as a woman, for the rest of her life. (Richards, 1987, p.110)

Women who experience a cesarean birth due to dystocia may be faced with greater psychological obstacles in order to achieve a VBAC. A cesarean mother may have very detailed, painful memories that compete with the image of her impending vaginal birth. So, in addition to practical changes needed to ensure a possibility of a VBAC, for example, a change in doctors or in hospitals, these women may have to focus on healing and re-establishing their belief in their body's ability to birth vaginally.

Systematic studies of the psychological nature of VBAC are few, and those that exist have not studied imagery. Instead VBAC studies have focussed on the factors women consider when deciding how to birth after a cesarean section (McClain, 1985; Miner, in press).

While imagery has long been established as a critical sport performance skill, researchers in natural childbirth have only begun to see its potential value. Previously, western thought has either ignored the effect of a mind/body connection during labor or has devised methods that attempt to use the mind to control the pain of childbirth (Earn, 1962). Bates and Turner (1985) found that more traditional cultures rely on the mind/body union existing within each woman to react to various images and symbols. This wedding of this psychological and physiological process aids in a woman's expulsion of her baby. Jones, author of Mind Over Labor (1987), suggests that "mental imagery is probably more suited to childbirth preparation than any other endeavor" (p.12). Jones believes that mental imagery works with and influences the right brain, and that during pregnancy and labor, the right hemisphere is more active than usual. Peterson and Mehl (1984) suggest that mental imagery benefits labor because real experience and visualization are encoded in similar ways through the limbic system. They maintain that the secondary cortices of the brain enable humans to re-live an event or memory. Thus, women during pregnancy and labor may be more open to images suggested to them and may be more likely to experience spontaneous images.

Childbirth imagery has been the topic of only two studies. The first by Horan (1973) described the relaxing images the author used with his wife in her labor. When the author described "covert pleasant images" he observed that his wife felt little pain and as a result, he suggested, required no medication until

she was taken away to delivery. A study by Wolf in 1986, again using one subject, explored visualization during pregnancy and found imagery left the subject feeling a sense of being in control, pride and a connection with the spiritual part of herself.

The above studies, while negligible in rigor, attempted to break ground in an area (visualization in pregnancy and labor) which had never before been documented.

Although VBAC imagery has never been measured in a study, it has been described in the lay literature as an important way to prepare for and work with the demands of pregnancy and childbirth after an unwanted cesarean. Lay literature which mentions imagery deals mostly with using imagery to heal from a negative birth experience. Healing imagery may be important as Panuthos (1983) suggests;

It is useful to change any conscious attitudes that could be redefined to better support child-bearing events. Attitude changes through affirmations (positive thoughts) and visualization (guided fantasy) are most effective after emotional upsets have been released and cleared. Once cleared, the mind is ready for a new set of beliefs, more accurately based in the present time. (p.64)

VBAC mothers refer to their use of imagery in a chapter in Silent Knife (called "Voices Of VBAC" which has contributions from 81 women) and in The Cesarean Birth Experience (which relates 24 VBAC stories). Some of them disclosed that they had used imagery in preparation for VBAC labor and during the actual VBAC birth itself. From this literature, it is apparent that some VBAC mothers have used imagery. However, the quantity, quality, content and effect of these visualizations is unknown. A logical next step for gaining a deeper understanding of the overall role of imagery and the role of imagery in the birthing process is to systematically measure and to qualitatively explore the nature of imagery used by women who have experienced positive vaginal birth after previous unwanted cesareans.

Purpose and Importance of the Study

The present study was an exploration of imagery relating to a special realm of physical activity - birthing. The purpose of this study was to explore imagery strategies used by women who experienced a positive vaginal birth following a previous unwanted cesarean diagnosed for dystocia. Specifically its purpose was to explore the quantity, quality and content of imagery used, to discover if imagery was perceived as

being helpful overcoming past negative birth experiences, and to determine the usefulness of imagery in preparing for a positive vaginal birth, and its role in the birth experience itself.

Method

Subjects

Subjects for this study were women who had experienced a vaginal birth after cesarean (VBAC). The mean age was 32.83 years. Most (90%) had experienced their vaginal birth (VBAC) after one cesarean.

Subjects were obtained by one of two routes:

1) The director of the VBAC Association of Ontario sent questionnaires to all the members, sixty in total.

2) "Contact persons" ie. doctors, midwives and childbirth educators known to be supportive of VBACs were sent letters explaining the purpose of the present study and asking them for: a) names of other supportive doctors, midwives and childbirth educators who may also be willing to help with the study and b) names and addresses of VBAC mothers with whom they have worked. As an alternative to directly providing names and addresses, they were given the option of sending the questionnaires to the women themselves.

Questionnaire packages included cover letters, questionnaires, self addressed stamped envelopes and endorsement letters when applicable (to be signed by the contact person). The cover letter introduced the researcher and the study and gave references from the coordinator of the Ottawa Cesarean Support Group and the director of the VBAC Association of Ontario, a midwife, a childbirth educator and a public health nurse, all who were familiar with and endorsed the study (see Appendix A).

In total, 244 questionnaires were received by women in Ontario; one hundred and twenty one were sent by the researcher and one hundred and fifteen by contact persons wishing to mail the questionnaires themselves. One hundred and twenty three were returned to the researcher before the cut off date of 8

weeks after distribution. The return rate was 52.1%. The total return rate at the time of this writing was 66%.

Subjects were selected from this pool on the basis of the following criteria:

- 1) the woman must have had her first cesarean for "dystocia" ("CPD" or "failure to progress"). She may have had any subsequent children by cesarean section.
- 2) subsequently, she must have had one or more VBACs, defined only as a vaginal birth after cesarean.
- 3) she must have responded to questionnaire items only with regard to her first (or only) cesarean and her first (or only) vaginal birth (VBAC).
- and 4) she must have had a "negative" cesarean experience and therefore must have answered either 1 or 2 on the cesarean satisfaction scale (where 1=horrible cesarean experience, 5=wonderful cesarean experience).

The breakdown of respondents according to indication for primary cesarean was as follows: dystocia - 52 (42 answering 1 or 2 on the cesarean satisfaction scale and 10 answering 3 or 4 on the same scale), breech - 20, fetal distress - 14, baby's position - 6, premature baby - 2, placenta previa - 4, toxemia - 3, other complication - 4. Where more than one indication was mentioned, the subject was categorized according to the most "absolute" medical indication (according to Cohen and Estner, 1984).

Forty-two of the respondents met all inclusion criteria for the present study. Ten subjects had primary cesareans for CPD and/or "failure to progress", but didn't rate their experience as "negative". Fifty three respondents had primary cesareans for "other" indications. Eighteen questionnaires were eliminated because they did not satisfy parts two and/or three of the criteria for subject selection.

Questionnaire Development

Since no known study on imagery in childbirth has had an "n" of greater than one or has utilized a questionnaire, the VBAC Imagery Questionnaire (see Appendix B) was developed based on information gained from a variety of sources; including the Athlete Readiness Form developed by Partington and Orlick

(1986) which explored the imagery used by elite Canadian athletes, medical VBAC studies, lay literature (most notably Silent Knife and Mind Over Labor), discussions with the members of the Ottawa Cesarean Support Group (C/Supp) and extensive discussions and written communication with the coordinators of the C/Supp and the VBAC Association of Ontario.

A pilot study to test the relevance and comprehension of the questionnaire was conducted with the coordinators of the C/Supp and the VBAC Association of Ontario, both of whom met the subject inclusion criteria. This procedure helped to refine questions and clarify terms.

The VBAC Imagery Questionnaire attempted to study women's cesarean and VBAC experiences and the imagery inherent or adopted in these situations. The first section (questions 1 - 26) explored the cesarean and VBAC experience through both qualitative and quantitative questions. A variety of topics were addressed to learn more about cesarean and VBAC births (ie. number of interventions, support available etc.). Three factors that were viewed as important to a woman's ability to attain a VBAC and possibly her satisfaction with the VBAC experience (from discussions with the Ottawa C/Supp and VBAC Association of Ontario) were included. They were; a change in health care professionals and a change in the place of labor and/or birth. Subjects were asked how much these changes had helped them to have a VBAC. Helpfulness ratings were measured on a likert scale (1= did not help at all, 5=helped a great deal).

The second section of the VBAC Imagery Questionnaire (questions 27 - 36) explored the role of imagery in the VBAC experience. Seven types of imagery were described and explored: healing imagery, imagery of vaginal and repeat cesarean births, imagery experienced during the vaginal birth (VBAC), other "uplifting" imagery, augmenting imagery, and block point imagery. They are defined as follows. Healing imagery referred to images of emotional and physical healing experienced at some time after their cesarean. Vaginal birth imagery referred to images of birthing vaginally when a woman was pregnant prior to her VBAC. Repeat cesarean imagery also occurred during the VBAC pregnancy, and was defined as images of another surgical birth. Imagery experienced during the vaginal birth (VBAC) referred to any images experienced during the actual VBAC labor and birth. Other "uplifting" imagery was defined as any salient

images experienced during the VBAC pregnancy other than birthing images. "Augmenting" imagery referred to images of labor and birth occurring during the VBAC pregnancy or birth, of a future or current labor and birth progressing "consistently" and "quickly". "Block point" imagery referred to specific imagery during the VBAC labor and birth which occurred at the same time (or the same centimeters of dilation) at which a cesarean was ordered in the previous birth.

Subjects were asked if they had ever experienced any of these types of imagery and were given an opportunity to describe the details of each image. Subjects were asked to what extent each type of imagery helped them to have a VBAC. These "helpfulness" ratings were measured on a likert scale (1= did not help at all, 5=helped a great deal). Vaginal imagery and repeat cesarean imagery were further explored in terms of the frequency of "spontaneous" and "pre-planned" imagery and the amount of time spent experiencing each type. Spontaneous imagery was defined as a "daydreaming" event. For example, all of a sudden a woman may see a "flash" of herself during a birth. Pre-planned imagery referred to images women consciously tried to imagine.

In addition, six "quality of imagery" variables were explored for both vaginal and repeat cesarean imagery. These items were presented on a five point likert scale as follows: inside view of of imagery (1=no inside view, 5=inside view, like being there); outside view of imagery (1=no outside view, 5=video view); feelings associated with imagery (1=no feeling, 5=vivid feelings); detail of imagery (1=little detail, 5=very detailed); control of imagery (1=impossible to make happen, 5=very easy to direct/control); description of imagery (1=mostly positive, 5=mostly negative).

Qualitative questions explored how subjects felt after experiencing vaginal birth or repeat cearean birth imagery. Subjects were asked where they had learned or had heard of imagery techniques. They were also asked if imagery had been discussed in prenatal classes prior to the cesarean and the VBAC.

Design

Data was collected by means of a mailed questionnaire. This was considered appropriate in order to gain a wider access to the few individuals in Ontario who met the critereon. Large numbers, more than

would be possible in an interview study, were required in order to study the widest range of individual imagery.

Procedure

The VBAC Imagery Questionnaires were first mailed in May, 1989. In July 1989 a reminder was sent to all women who were on the researchers mailing list (see Subject section). Subjects were drawn from the pool of returned questionnaire according to the selection criteria (see Subjects section).

Data Analysis

Quantitative Data

Parametric and non-parametric programs were used to analyze the quantitative data.

Qualitative Data

The VBAC Imagery Questionnaire contained several open questions which required a qualitative analysis. These questions asked subjects to provide detailed descriptions for any of the following types of imagery they had used; healing imagery, vaginal birth imagery, repeat cesarean imagery, other "uplifting" imagery, imagery during actual vaginal birth (VBAC), "augmenting" imagery and "block point" imagery. Feelings associated with vaginal birth imagery and imagery of a repeat cesarean were also probed by open questions.

Answers to the above questions were grouped by the researcher according to their content, and category labels were used to describe each category. Many detailed descriptions of imagery were given, and due to their complex content, were placed in more than one category. Category descriptions were provided to a judge, well practiced in imagery analysis of elite athletes, along with written descriptions of the images experienced by the subjects. Upon examination, the judge confirmed (100% agreement) that the category labels appropriately described the array of individual imagery. Next, one quarter of the responses for each of the seven types of imagery (44 image descriptions in total) were given to the coordinator of the Ottawa Cesarean Support Group (C/Supp), who judged the researcher's placement of the described imagery into

each category. The inter-judge reliability of placing the imagery descriptions in to category headings was 90%.

Results

In this section the results from the quantitative and qualitative analysis are reported. Also, four mental links to a positive birth experience are discussed.

Quantitative Analysis

Subjects were asked to identify which of seven types of imagery they experienced. All subjects but one used at least one type of imagery prior to or during their VBAC experience. They varied in the number of types of imagery they experienced, with the mean frequency approximately three.

The frequencies of VBAC women using the seven types of imagery were as follows: vaginal birth imagery, 81%; imagery during the vaginal birth (VBAC), 63.4%; other "uplifting" imagery, 46.2% ; healing imagery, 38.1%; repeat cesarean imagery, 32.5%; block point imagery, 31.7% ; augmenting imagery, 30.8%. A McNemar (1947) pair-wise test for finding the differences between correlated proportions was employed on this data (see Table 1). Vaginal birth imagery prior to the birth, imagery during the actual vaginal birth and other "uplifting" imagery were experienced most. Specifically, vaginal birth imagery prior to the birth was experienced significantly more (81%) than any other type of imagery except for vaginal imagery experienced during the actual birth (63.4%). Vaginal birth imagery during the birth was experienced significantly more than all other types of imagery except for vaginal birth imagery prior to the birth and other "uplifting" imagery (46.2%). Overall, these three types of imagery were used by VBAC women more than the others.

Subjects were asked how helpful each type of imagery was to their ability to have a VBAC. Helpfulness was rated on the five point likert scale (1= did not help at all; 5= helped a great deal). The mean helpfulness rating for each type of imagery are listed in Table 2. A Dunn's multiple t test for planned non-orthogonal comparisons was used on the "helpfulness" data. There were no significant differences ($p=.05$) between the helpfulness means of any of the different types of imagery. Although repeat cesarean

imagery and block point imagery had lower helpfulness means, they were not found to be statistically less helpful than other types of imagery. A small 'n' (ie. 12 subjects) in each of these latter groups may have contributed to the absence of significant findings. Vaginal birth imagery and cesarean birth imagery were further explored in terms of quantity of imagery: number of times, on average, imagery was experienced per week and the amount of time, on average, spent in each imagery session.

Vaginal birth imagery (experienced by 81% of the subject population) was explored in terms of the amount of both "spontaneous" and "pre-planned" imagery done (see Table 3). T tests for independent samples were chosen to compare the means of spontaneous and pre-planned imagery. The test showed that subjects did significantly more pre-planned vaginal birth imagery each week ($t=2.59$, $df=40$, $p<.05$) and spent significantly more time in pre-planned vaginal birth imagery ($t=9.25$, $df=42$, $p<.001$) than in spontaneous vaginal birth imagery.

Repeat cesarean birth imagery (experienced by 32.5% of the subject population) was also explored in terms of quantity of spontaneous and pre-planned imagery (see Table 3). Independent t tests showed that there were no significant differences ($p=.05$) in the mean number of pre-planned and spontaneous sessions a week or the mean amount of time spent in each pre-planned and spontaneous session.

The quantity of vaginal birth imagery was also compared against the quantity of repeat cesarean imagery. A t test for independent samples revealed a significant difference between pre-planned imagery of vaginal and repeat cesarean birth. There was significantly more pre-planned vaginal imagery experienced per week ($t=3.58$, $df=23$, $p<.01$) and significantly more time spent in each pre-planned vaginal imagery session ($t=6.13$, $df=28$, $p<.001$) as compared to pre-planned repeat cesarean imagery. There was no difference in spontaneous imagery; subjects experienced similar amounts of spontaneous vaginal and repeat cesarean birth imagery.

It is interesting to note that there were seven women in the vaginal imagery analysis and nineteen in the repeat cesarean analysis who indicated that they were unable to remember such detail with respect to the quantity of imagery.

For most women, performing imagery was an experience unique to their VBAC. The amount of imagery experienced prior to and during the VBAC was compared with the amount of imagery the women remembered experiencing prior to and during their cesarean experience. Five types of imagery were included in this analysis: vaginal birth imagery, repeat cesarean imagery, other "uplifting" imagery, imagery during the actual vaginal birth (VBAC) and augmenting imagery. Three types of imagery were experienced significantly more prior to VBAC than prior to the cesarean experience (see Table 4): vaginal birth imagery, other "uplifting" imagery and imagery during actual vaginal birth, as indicated by McNemar (1947) nonparametric comparisons. The amount of repeat cesarean imagery and augmenting imagery, both relatively low in both birth experiences, were not significantly different in cesarean and VBAC experiences.

Six quality of imagery items were explored for both vaginal imagery and repeat cesarean imagery; inside view of imagery, outside view of imagery, feelings associated with imagery, detail of imagery, control of imagery, and description of the imagery. When comparing the quality of vaginal birth imagery to repeat cesarean imagery (see Table 5), only one pair of items was significantly different using a *t* test for independent means ($t = 8.18$, $df = 42$, $p < .001$). This was the description of vaginal birth imagery ($x = 1.34$, $sd = .70$) as compared to the description of cesarean birth imagery ($x = 4.0$, $sd = 1.47$). The descriptions differed in that cesarean imagery was rated as mostly negative while vaginal birth imagery was rated mostly positive. There were no significant differences on the rest of the quality of imagery variables. The lack of significant differences in quality between vaginal birth imagery and cesarean birth imagery may suggest that the subjects imagery was consistent with respect to the quality of imagery regardless of whether the imagery was positive or negative.

Practical changes in birth environment were frequent and rated as very helpful (see Table 6). The data on changes in health care professionals, and change of place of labor and birth were included to give a sense of the relative importance of imagery. It should be noted that subjects were not asked to directly rank the relative benefits of all types of imagery and the these practical changes, but rather rated each on a 5 point scale. A Dunn's multiple *t* test revealed that there was no significant differences ($p = .05$) between

ratings of helpfulness of change in health care professionals, change in place of labor and birth, and helpfulness ratings of all seven types of imagery.

Qualitative Analysis

Vaginal Birth Imagery

Based upon written descriptions of vaginal birth imagery done in preparation for the VBAC birth, responses were categorized into nine different areas of focus: seeing the birth, feeling the birth (no mention of pain), feeling the birth (with pain mentioned), psychological birthing (similies and affirmations), post birth, birth setting, supportive attendants, no support desired, positive changes in birth plans, connection/no separation from the baby. Thirty two-women gave details of their vaginal birth imagery.

Many women (53%) reported seeing the physical components of the birth, whether it was how their birthing body would perform or the physical progress of birth itself:

"I saw myself walking through my contractions, kneeling, blowing."

"I tried to see my cervix opening up naturally to let the baby move down...imagined the baby having more and more room to move down..."

"[I] would see baby moving in uterus, down birth canal, into vagina. See baby crowning."

One woman reported seeing the birth from a unique perspective - through the baby's eyes:

"Not the contractions so much as the passage, blind, warm, pressing, yielding."

A large percentage (41%) of woman who described their vaginal birth imagery reported "feeling" these images. For some (13%) that meant feeling the associated pain:

"...[I] sense burning and stretching of the perineum."

"[I imagine] my feeling discomfort, welcoming contraction/pain bringing birth of the child closer."

For some (31%), feeling imagery was not associated with pain:

"I imagined what it felt like to have the sensation of pushing, since I'd never done that."

"I could feel my body opening up and the baby coming out."

"I seemed to be able to feel every muscle in my body participating, alternating between tightening and relaxing. It was a real "in-body" experience, very pleasant and not conscious of surroundings - only conscious of myself and the task at hand."

"I imagined myself pushing the head out - feeling hot and sticky."

One woman mentioned experiencing "smell" in her vaginal birth imagery:

"I could smell my birth and my baby - sweet and pure."

Many responses (41%) fell into the category of psychological birth images, mostly metaphors for birth and affirmations of a woman's ability to birth. The metaphors for a vaginal birth were all different. Some examples are as follows:

"...I would imagine the "WHOOSH". The whoosh would release me and my baby."

"I imagined birth...as a mountain climb."

"...the baby...moving further with every push, as if I was pushing it through a sweater."

"I sometimes would imagine a flower opening and imagine that my body would do the same if it was given the time and support."

"contractions coming, waving like large muscles flexing."

There were several (16%) affirmations reported in vaginal birth imagery:

"I was always saying affirmations - I can do it, pain is good, my baby will help get born."

"I knew I could do it and I practiced it in my mind many times."

Physical settings, particular to each subject who mentioned a birth setting (28%), seemed to be important in preparatory vaginal birth imagery:

"It was always a bright scene, outdoors maybe."

"I avoided imagining the [actual] surrounding since I knew I could be in the O.R. (operating room) and that scared me, so I mostly imagined labor and birth at home, or in the labor room, or in a "nice" environment, like a beach or a meadow."

"I had my baby on the kitchen floor in front of the patio door in the sunshine."

"We always had the baby by ourselves in our bedroom, yet the room was always full of plants and sunshine with no ceiling."

Some women (6%) visualized birthing in a setting similar to the place in which they had labored prior to their cesarean.

"Image involved birthing chair and the same room I started labor in for the cesarean birth."

"Always a bright, sterile hospital - mirrors, silver table, white sheets, legs up in stirrups etc. - the same place they gave up hope on me."

Many women (28%) mentioned imaging positive changes in labor and birth:

"I could feel my baby coming down through the birth canal - slowly, unhurried or hassled...I could feel massaging and no tearing, no ripping or cutting but control."

"pushing, pushing and pushing and the baby coming out without forceps or episiotomy. Then the baby placed on my stomach."

"seeing myself in labor, walking around, keeping on my feet for as long as possible, no lying on my back. Good breathing technique and lots of relaxation."

Some women reported imaging the period immediately after the birth (19%):

"I would see the doctor putting the baby in my arms and saying 'see you did it, and she's perfectly healthy'."

"My baby's head emerges...Feelings of exultation, love, joy, success."

"Imagine holding the baby."

"Holding my baby at my breasts immediately after."

Labor support was mentioned by (16%) in their descriptions of a vaginal birth imagery:

"Breathing and coping during labor with the help of my midwives and husband."

"Healing hands all around me."

Two women (6%) referred positively to the absense of support in their imaged vaginal birth:

"I called my husband from work and we had the baby ourselves...I knew we could do it alone."

"No one else could do it. It was up to me. I wasn't going to get any help from my husband or anyone else, just me."

Although most women (72%) did mention their baby in their description of vaginal birth imagery, a few (16%) specifically reported images of a special connection with their baby prior to birth or a closeness with them immediately after the birth:

"My baby inside my womb - baby and I knowing one another and feeling of love for one another."

"Then I would go on holding the baby and actually enjoying the baby as opposed to not being allowed to see the baby for 12 hours and wondering why."

In response to the question on how women felt after experiencing vaginal birth imagery, two categories emerged: Nearly all subjects (91%) reported feeling entirely positive, while others had mixed feelings (9%).

A listing of the positive adjectives used in their descriptions gives one the sense of the power generated in this type of imagery:

"confident, free, strong, joyous, proud, relieved, fulfilled, happy, successful, triumphant, powerful, in control, warm, calm, determined, excited, smiling wonderful, hopeful, wonderment, in awe, optimistic, encouraged, ready, satisfied, motherly, normal."

Some women had mixed feelings, which were not as overwhelmingly positive as the women's descriptions above.

"Usually a combination of good and apprehensive which was always better than fearful and which became a feeling of confidence as time went on."

"Left me feeling tired and spent but also fulfilled and happy."

"Confident, however impossible not to have any doubts."

Repeat Cesarean Imagery

An analysis of the repeat cesarean imagery resulted in two categories, negative images and positive coping. Ten subjects disclosed repeat cesarean descriptions. Most of the images were negative (80%). Eight

of the ten subjects who disclosed their repeat cesarean imagery, described images that were so frightening to them that some reported trying to force these images out of their mind.

"Bright lights, tied down, pressure on top of me, terror, anger."

"Being hooked up to tubes in my arms, monitors, being wheeled to operating room - lost, where is my husband? Is the baby alright?...O.R. Bright lights, green sheets, lots of faces I don't know, knife cutting my belly, blood passing my face in a clear tube. Lonliness. Pain."

A few women (40%) had "functional" repeat cesarean images; they planned the practical aspects of a necessary repeat cesarean and how they would react:

"I would make them drop the curtain for the actual birth. I would see my baby coming out and then hold it right away."

"I would have a clear mind and a clear decision that I need a cesarean and my husband would be with me and we [would] both see the baby coming out and that would compensate for the fact that it was not a vaginal birth."

"During a pre-planned imagery I would tell myself that a cesarean was not failing."

It was not surprising to find that the feelings women had after experiencing repeat cesarean imagery were mostly all negative (92%).

"Feelings of terror and tremendous loss."

"Scared, exhausted, defeated, less determined, very anxious. Lost faith in my body. Left my mouth dry and palms sweating."

"Scared, dreading it, alone."

A few felt there was a purpose to their repeat cesarean imagery (25%):

"I felt mad at myself for thinking about that again, but I felt it was necessary to prepare myself for all the possibilities."

"I felt disappointed that after going through labor again I still ended up with a cesarean. But I felt happy that I had control this time."

Imagery During Actual VBAC Birth

Imagery while actually birthing was divided into seven categories: physical birthing images; psychological birthing (ie. metaphors of birth); motivation from self, others and objects; psychological pain relief; birth setting; communication with the baby and imaging from the baby's perspective. The overwhelming common element in this type of imagery was that the women seemed very connected to the images. Twenty six subjects gave descriptions of imagery they had experienced during their VBAC labor and birth. They were completely absorbed with the images. Only one woman mentioned feeling outside her body and the experience.

Most women (54%) visualized the baby through the physical stages of labor and birth:

"[I could] see the baby move into the pelvis to the birth canal; the baby crowning, then fully born."

"I tried to feel my cervix and birth canal open."

"I could visualize my uterus working to help the baby move down and out - it helped to see the "urge" as a force from my uterus rather than something coming from my mind."

"I saw her head moving down and that was one of my most efficient pushes."

In the psychological birthing category (35%), metaphoric images were richer than those reported in the vaginal birth imagery done during pregnancy:

"I imaged...my cervix rolling open and up like when you roll together two matched socks. Mainly I imaged the "whoosh". Like a slightly dazed deer propelled by a gush of water."

"Riding the waves, going with the crests."

"an open gate entering into a huge meadow filled with flowers all blooming. The sky was so blue."

"I repeated over and over 'a diamond is a piece of coal that stuck to the job. I am a diamond.' I saw myself as beautiful, strong, bright and precious, like a diamond."

"I remember visualizing pictures of opening up; petals of flowers, rivers gushing into the wide open ocean."

"The bedside lamp was on and it was or seemed very dim...A midwife, a dark haired, dark skinned earth spirit witch mother (good witch) was bringing me tea and holding it by me. They were all around me, their hands were gentle and warm and loving - I was surrounded by women just as I'd wished I could have birthed. I felt like I was in a cave and there was firelight, the room became rounded in it's darkness and the lamp was a fire...it was ancestral, primal, archetypal. A cave, a symbol of a womb, perhaps a bear cave. The cave image stayed with me and the baby was a little bearspirit and she growled softly in the night. I lay awake all night and held her. The women, the midwives, how they became wise women, tribe women, sisters, loving me. The loving became very strong, it was warm and pulsing and it held me in it's flow."

Surprisingly, few women (15%) mentioned pain, but those that did, welcomed it or worked with it in their imagery and thus during their birth:

"Welcoming pain - opening."

"Actually looked forward to pain as this meant progress."

"Image of me going into a contraction as upon a wave and the wave (huge, huge) moving over me so that I drowned, was engulfed in my pain, my black tangible wave of night...and then...my blind state receded and the peak was gone...I was able to let go at these peaks."

Birth setting played an infrequent role in the reported VBAC birth imagery (12%):

"Saw myself walk to my bedroom and give birth in my bed."

"When I could finally start pushing, I visualized that I was back in that white, sterile, well lit mirrored room in the hospital."

Other women (27%) spoke of sources of motivation; self, others and tangible objects:

"Reassurance that I could do it and I was right not to compromise any of my birth plans."

"I visualized how happy he [husband] would be to see his baby born."

"I tried to imagine myself being assertive and strong and actually having the baby vaginally especially since my coach and husband were very supportive (as were the nursing staff) and they encouraged this positive thinking."

"When I learned it was a girl, I tied a pink bonnet to my wrist. It helped me through labor to envision a girl (my first daughter) and gave her a reality for me."

"I had an image with a kitchen knife...I just happened to glance at the dirty dishes and spotted the knife. At that point in my labor I was so tired that I was ready to just go to the hospital and have

this baby in whatever way possible. But when I saw that knife I thought no way, I'm not having another cesarean. I can go through this birth."

Most women (65%) mentioned the baby in reporting their imagery. One woman reported communicating directly with the baby:

"Talked with my baby during labor, telling him to move down."

One woman visualized what her baby might be seeing:

"I could actually 'see' from the inside, as if I were the baby moving toward the light."

Healing Imagery

An analysis of healing imagery revealed six categories, all with approximately equal frequency: physical healing, rebirthing, putting the cesarean experience away, visualizing future vaginal births, images of competence and mothering, and forgiveness of doctors and nurses involved with the cesarean. Healing imagery was similar to the imagery suggested in the lay literature, particularly Silent Knife. Fourteen subjects gave descriptions of their healing imagery.

Some women (21%) felt healed by "re-birthing", turning memories of their cesarean experience into a vaginal birth:

"Turning back the clock to the start of the labor, and going through it step by step but this time refusing all interventions, staying up walking until birth, then having a vaginal birth instead of a cesarean."

"I simply continued my labor from the moment I was anesthetized - I imagined having these strong urges to push, pushing and then giving birth vaginally."

Other women (21%) visualized future vaginal births:

"[I visualized] having my next baby naturally"

"I imagined myself actually having a VBAC - showing the very unsupportive staff that I could really deliver my own baby."

Quite different from any of the above ways of dealing with cesarean memories, some women (21%) re-lived the cesarean experience through their imagery and then mentally put it away. All of these images were of painting a picture of the cesarean experience:

"[my image] included several scenes and people, lots of orange and red and black and I still remember vividly...the shaking, hard...the red crying baby on the french fry tray, being tied down...Feelings too in the painting - joy, love; crying to see the baby. Then look at the painting in my mind and put it away...As I painted I began to get a headache that I'd had recurring since [the cesarean] birth, and as I relaxed the headache went away and never came back again."

Images of physical healing, done by (21%) women, were as follows:

"I lost some blood after I delivered the placenta. I was told to use my mind to help my uterus contract. I did over and over again. Telling my body to heal. It really worked."

"I tried to picture my uterus as whole and pink and unscarred - as healthy and pink."

Since an unwanted cesarean for dystocia may make a woman feel like a failure, healing also occurred for some women (29%) through images of competence, of their bodies and themselves as mothers:

"I visualized my big foot and said I can't believe that a woman my size can't have a vaginal birth."

"I had images of myself taking care of my child... saw myself in the future taking toddler to the park, teaching him to talk, walk etc."

Lastly one woman mentioned that forgiving the doctors and nurses who attended the cesarean was helpful for her psychological healing.

"Uplifting" Imagery

Other "uplifting" imagery (images used during pregnancy other than birthing images), divided into five categories with approximately equal frequency in each: the psychological self, post birth, relaxation, connection with the baby, and connection with the subject's mother. All images were positive. Twelve subjects gave the details of their uplifting imagery.

Images of the psychological (25%) self focussed on a sense of heightened self awareness and confidence:

"It was a strong feeling of self, body awareness... With all the negative people and their thoughts around me, this deep feeling told me yes, I could do it and succeed."

"[I] saw myself as much stronger and healthier after the birth. Imagined needing much less help... Handled both children and my life in general in a much more serene fashion."

Some women (33%) focussed their imagery on the time after their VBAC birth:

"Holding and breastfeeding my baby right away. Getting up right away and not having to rely on anybody. Going home."

"The image of our daughter after birth. [Her] face came vividly before me - vernix still on her face, her eye's puffy with dark hair, chubby cheeks - it was a fleeting image but so vivid that it stayed with me the rest of the pregnancy."

Some women (17%) described useful relaxing images:

"Ocean waves washing up against the shore, crashing, receding. Lying in the sun, feeling the warmth radiate over [my] whole body. Sitting in a comfy chair and hearing my cuckoo clock tick."

Images of connection with the baby were as follows:

"My baby in my womb; warm, safe, loved, content feelings of calm, peace."

"I spontaneously visualized my daughter trapped in a cave and all the townspeople wanted to use their shovels, pitchforks, saws, picks and dynamite to get her out. All I could do was send them away and at night she would talk to me through the stone and tell me not to worry, that she knew how to get out and she would when she wanted to."

Pregnancy often generates a new connection between a woman and her mother, and some women (25%) reported experiencing imagery of their own mothers:

"I visualized being with my mother like a friend, that I did not need to protect her anymore. As we were both mothers, we were both alive and happy on the same level...I had to let her go as I was having my own labor and not hers."

Augmenting Imagery

Augmenting imagery was dominated by images of "quick" births (75%) and specific "natural birth" images (50%). Twelve subjects gave augmenting imagery details.

"[I] visualized myself having a labor that was so short and uncomplicated it resulted in my having the baby at home before the midwife or husband could arrive. Sometimes I saw myself not even

experiencing labor, just giving birth unannounced in the car, at a friends, in the washroom, or at the shopping mall, no effort involved."

"I just instinctively knew I wasn't going to have a long labor. I pictured waking in the morning after a good sleep, telling my husband the baby was coming and having her in my arms and nursing her by lunchtime."

Others described more specific augmenting imagery, often mentioning the lack of interventions needed:

"I imagined a quick easy delivery with no interventions and no episiotomy - arriving at the hospital 10 cm. dilated and ready to push."

"[during an image] I feel myself opening while in the bathtub."

Block Point Imagery

Block point imagery was described as imagery during the VBAC labor at the point where a cesarean was ordered in a previous labor. Two types of augmenting images emerged here: positive coping with a negative image and visualizations that described a negative image but did not describe how they got past them. Eleven subjects detailed their block point imagery.

Some women (55%) visualized negative images associated with their cesarean and described how they coped during their VBAC:

"I felt the pushing start and I thought that 'this was where everything went wrong the first time', so instead of bearing down as hard as I could like I did before, I let my body do the work instead."

"When I had a different type of trouble in the pushing for the VBAC it nonetheless reminded me that I had similarly been stopped at that stage before. I got a bit worried, but never saw the cesarean setup...just tried frantically to push."

Other women (45%) described the negative image but unfortunately did not mention how they got past it in the VBAC:

"When the doctor arrived at my house and pronounced me 2 cm. dilated and a long labor ahead I saw myself headed in the same direction as my first birth."

"I looked back on my cesarean labor and when I got to 10 cm I hoped I would be able to get beyond the pushing stage successfully."

Mental Links to a Positive Birth Experience

A pattern emerged in terms of the psychological preparation common to VBAC women in this study. Four mental elements were evident. These included the most frequently used types of imagery and frequent changes in the birthing environment, both of which were rated as being very helpful: 1) Most women prepared for a positive birth (a VBAC) by using substantial amounts of detailed vaginal birth imagery. These images left them feeling very positive and confident about the upcoming birth; 2) Most women experienced other "uplifting" imagery which focused on images of confidence, competence and closeness with their babies; 3) Also in preparation for the vaginal birth, most women made changes in health care professionals and labor and birth locations. These practical changes created a more optimal environment for a positive vaginal birth; 4) Most women experienced vivid emotive imagery during their vaginal birth. These images focused on many aspects of a vaginal birth and on allowing the birth to unfold naturally.

Discussion

This thesis was an exploration of the role of imagery used in the birth experience by VBAC mothers, a population who experienced a positive vaginal birth subsequent to a negative cesarean.

Seven types of imagery were experienced both during the VBAC pregnancy and during the birth itself. Three types of imagery were more commonly experienced than other types; a) vaginal birth imagery during the VBAC pregnancy, b) other "uplifting" imagery experienced during the VBAC pregnancy and c) imagery during the vaginal birth (VBAC) itself. Subjects reported utilizing these three types of imagery significantly more in their VBAC when compared to their cesarean experience.

Most of the women surveyed (81%) experienced vaginal birth imagery during their VBAC pregnancy. This vaginal birth imagery was very positive in nature and descriptions of the images were rich with detail. Most images were related to seeing and feeling a vaginal birth and seeing the baby. Interestingly, many women reported "feeling" their birth imagery yet none of them had actually felt a vaginal birth before. "Psychological birthing", metaphors of birth (ie. a mountain climb, a flower opening) and affirmations of the ability to birth vaginally (ie. "I can do it") were particularly vivid. Vaginal birth imagery was largely

pre-planned. That is, women deliberately visualized a positive outcome (a vaginal birth) far more than they experienced spontaneous images of vaginal births.

Almost half of the women (46.2%) mentioned that they experienced images other than birth during the pregnancy prior to the VBAC. These other "uplifting" images were peaceful and related mostly to being relaxed, in a confident state of mind, and feeling a connection with the baby in utero and after the birth.

Imagery experienced during the actual vaginal birth (VBAC) was very common (experienced by 63.4% of the subject population). This imagery was vibrant and positive. Women seemed absorbed by these images. The images mainly focused on allowing the birth to unfold naturally and often related to the actual processes of labor such as the cervix opening and the baby moving down the birth canal. Some women used imagery as a means of motivation for them to continue to birth vaginally. This motivation came from themselves, from others and even from inanimate objects. Many women shared metaphors of birth. These metaphoric images (ie. gushing river, gentle birth of a bear cub) seemed more detailed than the metaphors of vaginal birth mentioned in the vaginal birth imagery experienced during the VBAC pregnancy. The images experienced during the VBAC birth may well have been a spontaneous reaction to the birthing situation. Such spontaneity or "intuitive imagery" may lend support to Jones's theory (1987) that women during birth are governed by their right brain, and become more instinctive and introspective, and thus more open to spontaneous images.

It was not surprising that women who had been told that their bodies were inadequate for birthing (diagnosis of dystocia) predominately visualized images of successful vaginal births and other "uplifting" images relating to their confidence and competence. During the VBAC birth, they continued to utilize imagery as a tool for staying focussed on the wisdom of their laboring body. Perhaps these images functioned to enhance their belief in their ability to birth vaginally.

Women were asked to rate the helpfulness of their imagery, and of practical changes in their birth plans. All types of imagery utilized by individual subjects were rated as being very helpful to the VBAC experience, although helpfulness scores on repeat cesarean and block point imagery were somewhat lower.

In addition, women reported their imagery to be just as helpful in terms of achieving a VBAC as were changes in health care professionals and changes in the place of labor and birth. It should be noted that subjects did not directly compare the helpfulness of practical changes in the birth environment, as would be done in a relative impact design. Nonetheless, the fact that helpfulness ratings of imagery and change in health care professionals and a change in labor and birth location (both regarded as vital) were rated as similarly helpful speaks to the importance of imagery and the power of this psychological tool in the VBAC experience.

Descriptions of feelings after experiencing vaginal imagery were a testimony to the power of imagery to create real, vivid and emotion filled responses.

It is interesting to note that the "quality" (as defined by the six "quality" scales) of vaginal and repeat cesarean imagery was similar. Even though vaginal birth imagery was rated as mostly positive and repeat cesarean imagery was rated as mostly negative, they were otherwise consistent in terms of imagery perspective (inside or outside view), control of imagery, extent of feelings and amount of detail.

If one compares the quality of the VBAC imagery to the quality of imagery demonstrated by elite Canadian athletes (Orlick and Partington, 1988), there is a substantial difference. Apart from a few exceptional cases, the VBAC imagery was of a "lower" quality. Orlick and Partington (1988) suggested in their study that the best athletes achieved a high quality of imagery. That is, top athletes at their peak had excellent control of detailed imagery, a great deal of associated feeling in their muscles and nervous system, and a very real or functional imagery perspective (ie. an "inside view" of their performance). Perhaps there is room for additional growth and application of those principles in preparation for and during vaginal births, especially following a cesarean. In particular, clarification of the quality of imagery that enhances psychological and physical events, and the uses of "re-focussing" techniques (ie. leaving a negative memory and coming back to a present functional focus), may be very useful to women in the VBAC situation.

However, no clear conclusions can be drawn with respect to the optimum uses of "negative" memories that infiltrated some imagery. An examination of repeat cesarean imagery, block point imagery and healing

imagery, all dealing with specific negative memories, revealed no beneficial pattern. For example, the majority of repeat cesarean imagery was reported as being "very negative", probably since the most reported images resembled nightmare-like recollections of their primary cesarean. Perhaps the high frequency of detailed positive vaginal imagery experienced by these VBAC women was sufficient to overcome negative memories.

When considering the results of this study, a few cautionary notes apply. Fifty-two percent of the questionnaires were returned by the cut-off date and a total of 66% were received thereafter. It is difficult to know what imagery was experienced by those who did not respond. Therefore, our results apply only to those who returned questionnaires.

Also, in some subjects, there was an appreciable time lag between the VBAC experience and questionnaire response. This introduces the possibility of inaccurate retrospections. However, a birth is a highly salient event in a woman's life. Both the cesarean and VBAC experiences were reported in strong, vivid and sometimes emotional terms. The amount of detail reported in the open questions suggests that these women had no trouble recalling either birth experience.

Lastly, this study did not employ a comparison group. In future studies of this nature, an obvious choice for comparison groups would be either cesarean mothers who chose a repeat cesarean or cesarean mothers who attempted a VBAC and "failed". It was not possible to arrange contact with a group of such women. Doctors, midwives and childbirth educators who were so willing to assist in finding VBAC mothers simply did not have much contact with women who had repeat cesareans, particularly those who chose a second surgical birth. Such a study would likely require extensive contacts in the medical field, involve a formal application to the appropriate medical association and thus a long wait. Nevertheless, such comparisons may be considered fertile ground for further study.

This study confirmed the suspected high frequency of imagery, particularly positive imagery, amongst VBAC mothers and enhanced our understanding about that imagery. It showed that the women in this study, after experiencing a negative cesarean performed due to dystocia, were highly committed to a clear

goal, a demanding physical and psychological event, a VBAC. To that end, many women prepared similarly for their upcoming birth and shared a positive perspective in the VBAC itself. Based upon the high frequency of women who made changes in the birthing environment and the equally high number of women who experienced vaginal birth imagery, other "uplifting" imagery, and imagery during the actual VBAC birth, four mental links to a positive birth experience emerged. First, in preparation for their desired goal, women focused on the positive, on what they wanted to happen. Specifically, they did substantial positive imagery surrounding many aspects of the upcoming anticipated vaginal birth. Second, they experienced other "uplifting" images that made them feel competent, confident and in contact with the baby. Third, they created a situation in which their goal could be achieved. A significant number of women desiring a VBAC made changes in their health care professionals, and changes in the place where they labored and birthed. Fourth, during the VBAC event, they stayed connected to the experience and focused on positive vivid and emotion-filled images, but remained open to allow positive spontaneous images to assist them in achieving the goal. Other women preparing for birth could gain from employing these common elements as well as from the specific pre-planned and spontaneous imagery described (reported in the results section). Prenatal instruction which includes these common psychological strategies and integrates the detail of quality utilized by top athletes may enhance any birthing experience. Future research may evaluate the "effect" of such an imagery program, perhaps utilizing a more traditional intervention research design.

The implications of this study are significant for performers in a variety of situations. Women who have overcome a negative birth experience used a great deal of positive imagery, but it was the level of emotion and detail in the images that was most notable. Graphic detail and emotional involvement were evident even when the image centered on a "feeling" these women had never experienced; for example, the physical feelings associated with a vaginal birth. Performers, regardless of venue, may find that the use of "real" and affective positive imagery may result in immediate positive and confident feelings and may assist them in attaining an important performance goal.

References

- Bates, B. & Turner, A.N. (1985). Imagery and symbolism in the birth practices of traditional cultures. Birth, 12, 29-35.
- Cohen, Nancy Wainer & Estner, Lois J.(1984). Silent Knife. South Hadley: Bergin & Garvey Publishers, Inc.
- Cox, Bonnie E. & Smith, Elaine C. (1982). A mother's self-esteem after a cesarean delivery. Maternal Care Nursing (MCN), 7, 309-314.
- Earn, A.A. (1962). Mental concentration - a new and effective psychological tool for the abolition of suffering in childbirth. American Journal of Obstetrics and Gynecology, 83, 29-36.
- Erb, L., Hill, G., & Houston, D., (1983). A survey of parents' attitudes toward their cesarean births in Manitoba hospitals. Birth, 10(2), 85-92.
- Feltz, D.L. & Landers, D.M. (1983). The effects of mental practice on motor skill learning and performance: a meta-analysis. Journal of Sport Psychology, 5, 25-57.
- Hale, B.D. (1982). The effects of internal and external imagery on muscular and ocular concomitants. Journal of Sport Psychology, 4, 379-387.
- Horan, John J. (1973). "In vivo" emotive imagery: a technique for reducing childbirth anxiety and discomfort. Psychological Reports, 32, 1328.
- Hutchinson, Marcia Germaine. (1985). Transforming Body Image. U.S.A.: Library of Congress.
- Jones, Carl. (1987). Mind Over Labor. Harrisonburg: R.R. Donnelly and Sons Co.
- Korte, D. & Scaer, R.(1984). A Good Birth, A Safe Birth. Toronto: Bantam Books.
- Laufer, A., Hodenius, V., Friedman, L., Duncan, N., Guy, C.M., MacPherson, S. & Barrows, N. (1987) Vaginal birth after cesarean section. Journal of Nurse - Midwifery, 32, 41-47.
- Lipson, J.G. & Tilden, V. Peterson. (1980). Psychological integration of the cesarean birth experience. American Journal of Orthopsychiatry, 50(4), 598-609.
- Mahoney, M.J. & Avenier, M. (1977). Psychology of the elite athlete. Cognitive Therapy and Research, 1, 135-141.
- Marut, J.S. & Mercer, R.T. (1979). Comparison of primiparas' perceptions of vaginal and cesarean births. Nursing Research, 28(5), 260-266.
- Miner, L.S. (in press). Choice of birth method after cesarean section. (Department of Nursing, University of Florida).
- McClain, Carol Sheperd. (1985). Why women choose trial of labor or repeat cesarean section. Journal of Family Practice, 21(3), 210-216.
- McNemar, Q. (1947). Note on the sampling error of the differences between correlated proportions or percentages. Psychometrika, 12, 153-157.

Mercer, R.T. & Marut, J.S. (1981). Comparative viewpoints: Cesarean vs. vaginal childbirth. In D.D. Affonso (Ed.), Impact of Cesarean Childbirth. Philadelphia: F.A. Davis Company.

Mumford, B. & Hall, C. (1985). The effects of internal and external imagery on performing figures in figure skating. Canadian Journal of Applied Sport Science, 10, 4, 171-177.

National Consensus Conference on Aspects of Cesarean Birth. (1986). MacMaster University, Guelph, Ontario.

Nideffer, R.M. (1985). Athletes' Guide to Mental Training. Illinois: Human Kinetics Publishers, Inc.

Notzon, F.C., Placek, P.J. and Taffel, S.M. (1987). Comparisons of national cesarean-section rates. New England Journal of Medicine, 316, 7, 386-389.

Orlick, T. (1986). Psyching for Sport: Mental Training for Athletes. Illinois: Leisure Press.

Orlick, T. and Partington, J. (1988). Mental links to excellence. The Sport Psychologist, 2, 105-130.

Panuthos, C. (1983). The psychological effects of cesarean deliveries. Mothering, Winter, 61-65.

Partington, J. & Orlick, T. (1986). Documenting athlete readiness for the 1984 Olympics and evaluating sport consulting. Ottawa: Coaching Association of Canada.

Peterson, Gayle & Mehl, Lewis. (1984). Pregnancy as Healing. Berkeley: Mindbody Press.

Richards, Lynn Baptisti. (1987). The Vaginal Birth After Cesarean Experience. South Hadley: Bergin and Garvey Publishers, Inc.

Richardson, A. (1967). Mental practice: a review and discussion (Part 1). The Research Quarterly, 38, 95-107.

Schlater, S. & Pernoll, M.L. (1987). Dystocia. In M.L. Pernoll & R.C. Benson (Eds.) Current Obstetric and Gynecologic Diagnosis and Treatment (pp. 441-455). Connecticut: Prentice-Hall.

Shearer, Elizabeth Conner. (1981). Education for vaginal birth after cesarean. Birth, 9, 31-34, Spring.

Suinn, R.M. (1972). Behavior rehearsal training for ski racers. Behavior Therapy, 3, 519-520.

Sweet, Gail Grenier. (1983). Vaginal birth after cesarean: Interview with Nancy Wainer Cohen. Mothering, Winter, 66-72.

Unestahl, L. E. (1982). Inner mental training for sport. In T. Orlick, J. Partington, & s. Samela (Eds.) Mental training for coaches and athletes: proceedings of the ISSP 5th World Sport Psychology Congress. Ottawa, Ont.: Coaching Association Of Canada, 1982, 135-140.

Vealey, R. (1986). Imagery training for performance enhancement. In J.M. Williams (Ed.). Applied Sport Psychology. California: Mayfield Publishing Company.

VBAC Association of Ontario Statistics. (1988). Unpublished raw data.

VBAC Association of Ontario Newsletter. (1987). Spring issue.

Wolf, B.A. (1986). Women's experience of visualization during pregnancy. Dissertation Abstracts, 912-B, DA8713034.

Table 1

McNemar Scores for Incidence of Imagery

<u>Comparison</u>	<u>Number of Cases</u>	<u>Chi-Square</u>	<u>p-probability</u>
HZ & VZ	42		0.0001
HZ & RCZ	41		1.0000
HZ & VZBIRTH	41		0.0530
HZ & AZ	40		0.4240
HZ & BPZ	42		0.5811
HZ & OZ	40		0.5811
VZ & RCZ	40	11.17	0.0008
VZ & VZBIRTH	40		0.1185
VZ & AZ	40		0.0001
VZ & BPZ	41	12.89	0.0003
VZ & OZ	40		0.0005
RCZ & VZBIRTH	40		0.0044
RCZ & AZ	40		1.0000
RCZ & BPZ	40		1.0000
RCZ & OZ	39		0.4049
VZBIRTH & AZ	39		0.0170
VZBIRTH & BPZ	41		0.0070
BZBIRTH & OZ	39		0.1440
AZ & BPZ	40		1.0000
AZ & OZ	39		0.3020
BPZ & OZ	40		0.3330

NOTE:

HZ = healing imagery
 RCZ = repeat cesarean imagery
 AZ = augmenting imagery
 OZ = other "uplifting" imagery
 VZ = vaginal birth imagery
 VZBIRTH = imagery during actual VBAC
 BPZ = block point

Table 2

Helpfulness Ratings of Imagery

	<u>Mean Helpfulness Score</u>	<u>sd</u>
HZ	4.25	1.18
RCZ	3.73	1.56
AZ	4.09	0.94
OZ	4.18	1.13
VZ	4.31	0.67
VZBIRTH	4.27	1.04
BPZ	3.42	1.68

Note: Helpfulness rated on five point likert scale (1=did not help at all; 5=helped a great deal)

Table 3

Quantity of Vaginal and Repeat Cesarean Imagery

		<u>Mean Sessions/Week</u>	<u>Mean Minutes/Session</u>
Vaginal) Imagery)	spontaneous	3.79 (sd=3.52)	3.38 (sd=2.18)
	pre-planned	5.48 (sd=5.89)	10.41 (sd=9.90)
Repeat) Cesarean) Imagery)	spontaneous	2.67 (sd=2.25)	3.25 (sd=3.66)
	pre-planned	1.00 (sd=2.00)	2.08 (sd=3.93)

Table 4

Pre-Cesarean and Pre-VBAC Imagery Comparisons

<u>Comparison</u>	<u>Number of Cases</u>	<u>Chi-Square</u>	<u>p-probability</u>
VZ & VZC	41		.0001
RCZ & CZ	40		.2268
OZ & OZC	32		.0010
VZBIRTH & ZBIRTHC	41		.0009
AZ & AZC	38		.3437

Note: RCZ - repeat cesarean imagery prior to VBAC
 CZ - cesarean imagery prior to cesarean
 AZ - augmenting imagery prior to VBAC
 AZC - augmenting imagery prior to cesarean
 OZ - other augmenting uplifting imagery prior to VBAC
 OZC - other uplifting imagery prior to cesarean
 VZ - vaginal birth imagery prior to VBAC
 VZC - vaginal birth imagery prior to cesarean
 VZBIRTH - imagery during actual VBAC
 VZBIRTHC - imagery during actual cesarean

Table 5

Quality of Vaginal and Repeat Cesarean Imagery

	Vaginal Imagery <u>Mean</u>	<u>sd</u>	Repeat Cesarean <u>Mean</u>	<u>sd</u>
Inside View	3.60	1.65	3.00	1.63
Outside View	2.73	1.63	2.42	1.62
Feelings	3.12	1.40	3.15	1.41
Detail	3.34	1.38	3.17	1.53
Control	3.28	1.46	2.50	1.31
Description	1.34	0.70	4.00	1.47

Table 6

Practical Changes in Birth Environment

	<u>Frequency</u>	<u>Mean Rating of Helpfulness</u>
Change in:		
Health Professionals	91%	4.76 (sd=0.82)
Place of Labour	92.9%	4.71 (sd=0.96)
Place of Birth	71.4%	4.52 (sd=1.02)

Note: Helpfulness rated on five point likert scale (1=did not help at all;
5=helped a great deal)

Appendix A

Cover Letter to Subjects

Dear

I am writing to you in hopes that you will complete the following questionnaire on your cesarean and VBAC experiences. I believe that we need to know more about the VBACs and cesareans in order to more fully understand the psychological nature of these experiences and in order to help other cesarean mothers attain a VBAC. You, and every VBAC mother has had a unique experience and each of you can make a unique contribution to this study.

Your name has been given to me by a doctor, midwife and/or childbirth educator who is supportive of VBAC. The enclosed questionnaire is part of a study approved by the graduate school of the University of Ottawa that will enable me to complete my masters degree in Kinanthropology.

First let me assure you as to the confidentiality and anonymity of your responses. You are not required to include your name, nor has the questionnaire you received been coded in any way to reveal your identity.

The questionnaire covers two areas. First it asks about the many details surrounding your cesarean and VBAC experiences. For many women some aspects of these experiences have been very distressing. If you find yourself becoming upset in re-living any negative memories, please remember that this is a volunteer activity, and you are free to participate as you choose.

Second the questionnaire also asks about any experience you may have had with imagery during your preparation for labor or during labor itself. Imagery (or visualizations) are pictures, sounds, feelings, tastes or smells you construct in your head rather than experience directly through your senses. Images are different for everybody. It can be like daydreaming - all of a sudden you "see" a picture of yourself in a particular situation.

This is called **"spontaneous imagery"**. Imagery can also be scheduled - you may decide to try and "see" yourself birthing in a particular way. This is called **"pre-planned imagery"**. You may have experienced one type of imagery, both types or none at all in your cesarean and VBAC experiences.

Please be forewarned that this is a lengthy questionnaire. It should take approximately 45 minutes to complete (your time is appreciated!!). If you need to take a break, it is best taken after the first section (question 26). Please take the time to reflect on each question and answer in as much detail as you remember. There is an additional blank sheet enclosed should you need more space. Please remember to indicate, when using the blank sheet, which question you are answering.

For the purposes of this study it is important that you answer the questions regarding your first (or only) cesarean and your first (or only) VBAC.

Please complete the questionnaire at your earliest convenience and mail it to me in the enclosed self-addressed stamped envelope. If, for any reason, the envelope has been misplaced, my address is:

Anne Pitman
13 Eccles St.
Ottawa, Ontario
K1R 6S1

If you have any comments you wish to share with me personally, I may be reached at 1-613-232-0294.

Thank you for your attention to this letter. I am including a list of women who are familiar with my work, and who will endorse this study.

Sincerely,

Anne Pitman

References

Caroline Sufrin
VBAC Association of Ontario
Toronto, Ontario
416-483-3370

Teresa Pitman
Childbirth Educator, Writer
Oakville, Ontario
416-845-3204

Pam Graydon
Ottawa Cesarean Support Group
Ottawa, Ontario
613-726-1166

Lynn MacPhee
Public Health Nurse
Ottawa, Ontario
613-728-1165

Lise Roy
Midwife
Ottawa, Ontario
613-748-7038

Appendix B

VBAC Mothers Questionnaire

The following section (questions 1-26) of the questionnaire asks about various details surrounding your (first) cesarean and your (first) VBAC.

1. Please list ages of your children (in years and months ie. 4 years, 3 months), state their weight at birth and indicate whether they were born vaginally or by cesarean:

Child 1: Age	Birth Weight	Circle one: vaginal cesarean
Child 2: Age	Birth Weight	Circle one: vaginal cesarean
Child 3: Age	Birth Weight	Circle one: vaginal cesarean
Child 4: Age	Birth Weight	Circle one: vaginal cesarean

2. Your Age:

3. What medical reason were you given (by doctor, medical staff) for your cesarean?

4. At the time of your cesarean and shortly after, what did you believe was the reason for your cesarean section?

Circle one:

same as listed above (in question 3)

different than listed above (in question 3).

Please state what you felt to be the reason for your cesarean.

5. Looking back, what do you now believe was the reason for your cesarean?

Circle one:

same as listed in question 3

same as listed in question 4

different then listed in the above questions. Please

state what you now feel was the reason for your cesarean.

6. Indicate what kind of cesarean incision (abdominal and uterine) you were given.

Abdominal- **circle one:** classical or low transverse

Uterine - **circle one:** classical or low transverse

7. Circle the additional interventions used during your cesarean labor and birth.

enema
shave
pitocin drip
stripping or rupturing of membranes
I.V.
external fetal monitor
internal fetal monitor
epidural anesthesia
spinal anesthesia
other intervention(please specify):

8. During the labor prior to your cesarean, at what point (in terms of centimeters of dilation and hours of labor) did your labor seem to slow or stop?

.....cms dilation. hours.

9. During your cesarean labor and birth, who was with you? **Please check as many as apply:**

during labor	at the birth
doctor	
midwife.....	
nurse.....	
baby's father.....	
family (specify).....	
friends.....	
other (specify).....	

10. How would you rate the labor prior to your cesarean?

1 2 3 4 5
horrible wonderful

11. How would you rate your cesarean birth experience?

1 2 3 4 5
horrible wonderful

12. After your cesarean experience, what or who was most helpful to your physical and/or emotional recovery from your cesarean? Please circle as many as apply.

family (specify)
friends
doctor
midwife
nurse
support group
specific reading (specify)
other (specify)

13.a) Prior to your VBAC, did you consciously decide to birth vaginally, or was the VBAC unplanned?

Circle one: VBAC planned

VBAC unplanned

b) If you consciously decided to have a VBAC, what were your reasons?

14.a) Did you change health care professionals in attendance for your VBAC? Circle one: Yes No

If you answered 'yes' to a), please answer b) and c)

b) What changes did you make?

Circle one: from obstetrician to a different obstetrician
from obstetrician to a general practitioner
from general practitioner to another g.p.
from g.p. to an obstetrician
other (specify)

Circle one or both:

added a midwife
added a labor coach
other (specify)

c) to what extent did these changes help you to have a VBAC?

1	2	3	4	5
did not				helped a
help at all				great deal

15. During you VBAC labor and birth, who was with you?
Please check as many as apply:

during labor	at the birth
doctor	
midwife.....	
nurse.....	
baby's father.....	
family (specify).....	
friends.....	
other (specify).....	

16.a) Did you change the place of your VBAC labor?
Circle one: Yes No

If you answered 'yes' to a), please answer b) and c).

b) What change did you make?

Circle one: from hospital to a different hospital
 from hospital to a birthing centre
 from hospital to a home
 from birthing centre to a homebirth
 from homebirth to a birthing centre
 from homebirth to a hospital
 other (specify)

c) To what extent did this change help you to have a VBAC?

1	2	3	4	5
did not				helped a
help at all				great deal

17.a) Did you change the place of your VBAC birth?
Circle one: Yes No

If you answered 'yes' to a), please answer b) and c).

b) What change did you make?

Circle one: from hospital to a different hospital
 from hospital to a birthing centre
 from hospital to a homebirth
 from birthing centre to a homebirth
 from homebirth to a birthing centre
 from homebirth to a hospital
 other (specify)

c) To what extent did this change help you to have a VBAC?

1	2	3	4	5
did not				helped a
help at all				great deal

18.a) Did you attend childbirth education classes prior to your cesarean delivery? **Circle one:** Yes No

If you answered 'yes' to a), please answer b) and c).

b) What association/hospital ran the class?

c) Did they discuss the use of imagery in pregnancy and labor?
Circle one: Yes No

19.a) Did you attend childbirth education classes prior to your VBAC delivery? **Circle one:** Yes No

If you answered 'yes' to a), please answer b) and c).

b) what association/hospital ran the class?

c) did they discuss the use of imagery in pregnancy and labor?

Circle one: Yes No

20. How long was your VBAC labor? hours

21. Please circle the additional interventions used during your VBAC labor.

enema
shave
pitocin drip
stripping or rupturing of membranes
I.V.
external fetal monitor
internal fetal monitor
epidural anesthesia
spinal anesthesia
other intervention(please specify):

22. When, in your pregnancy or labor, did you sense that you would have a VBAC?

23. How would you rate your VBAC experience?

1	2	3	4	5
horrible				wonderful

24. How confident are you that your next birth (if there were one) would be vaginal?

1	2	3	4	5
not				very
confident				confident

25. What would you do differently in terms of preparation for a vaginal birth?

26. What would you do differently during labor and a vaginal birth?

The next section (questions 27-36) of this questionnaire asks about the visualization or imagery you may (or may not) have experienced during the pregnancy prior to your VBAC and/or during your VBAC labor and delivery.

During pregnancy some women daydream about labor. All of a sudden, without trying, they see a "flash" of themselves in labor or giving birth. We call this experience "spontaneous" imagery.

Some women consciously try to see themselves birthing. They may even plan this in-the-head practice of visualizing their up-coming birth. We call this "pre-planned" imagery.

27. After a cesarean, some women experience imagery of themselves healing, either physically and/or emotionally. Sometimes this imagery is pre-planned by the women and sometimes it occurs spontaneously.

a) After your cesarean, did you ever visualize anything connected to your physical or emotional healing?

Circle one: Yes No

If you answered 'yes' to a), please answer b) and c).

b) What specific imagery did you experience? Please describe in as much detail as you can. (use the extra paper provided if necessary)

c) to what extent did this imagery help you to have a VBAC?

1	2	3	4	5
did not				helped a
help at all				great deal

28. During their pregnancy, some women experience imagery of themselves in labor and birthing.

a) Did you ever visualize birthing vaginally during the pregnancy prior to your VBAC birth?

Circle one: Yes No

b) Did you ever visualize birthing vaginally during the pregnancy prior to your cesarean birth?

Circle one: Yes No

If you answered yes to a), please answer c), d), and e) regarding your VBAC experience.

c) During the pregnancy prior to your VBAC, how many times a week did you spontaneously visualize a vaginal birth and how many times a week did you visualize a vaginal birth through pre-planned imagery? Also, how long would each type of image last?

spontaneous-	a week;.....	minutes each time
pre-planned-	a week;.....	minutes each time

d) During an image of birthing vaginally what would you see and/or feel? Please explain in as much detail as you can.

e) To what extent did this imagery help you to have a VBAC?

1	2	3	4	5
did not				helped a
help at all				great deal

The same questions will now be asked regarding imagery experienced of birthing by repeat cesarean during the pregnancy prior to your VBAC.

29.a) Did you ever visualize birthing by repeat cesarean during your pregnancy?

Circle one: Yes No

b) Did you ever visualize birthing by cesarean during the pregnancy prior to your cesarean?

Circle one: Yes No

If you answer yes to a), please answer c), d), and e) regarding your VBAC experience.

c) During the pregnancy prior to your VBAC, how many times a week did you spontaneously visualize a birth by repeat cesarean and how many times did you visualize a birth by repeat cesarean through pre-planned imagery?

spontaneous-	a week;.....	minutes each time
pre-planned-	a week;.....	minutes each time

d) During an image of birthing by repeat cesarean, what would you see and/or feel? Please explain in as much detail as you can, and describe as many images as you can remember.

e) to what extent did this imagery help you to have a VBAC?

1	2	3	4	5
did not				helped a
help at all				great deal

30.a) Apart from birthing imagery, did you experience any other visualizations during the pregnancy prior to your VBAC to help you prepare for your VBAC birth?

Circle one: Yes No

b) did you visualize anything similar during the pregnancy prior to your cesarean?

Circle one: Yes No

If you answered yes to a), please answer c), and d) regarding your VBAC experience.

c) Please describe the visualization your referred to in a). Use as much detail as you can and describe as many images as you remember.

d) to what extent did this imagery help you to have a VBAC?

1	2	3	4	5
did not				helped a
help at all				great deal

31. Some women experience imagery while actually birthing. Sometimes this imagery is pre-planned and sometimes it occurs spontaneously.

a) Did you visualize during your actual VBAC labor and birth?
Circle one: Yes No

b) Did you visualize during the labor prior to your cesarean or during the cesarean itself? Circle one: Yes No

If you answered yes to a), please answer c) and d) regarding your VBAC experience.

c) What did you see and/or feel in the imagery you experienced during your VBAC labor and birth? Please explain in as much detail as you can and describe as many images as you remember.

d) to what extent did this imagery help you to have a VBAC?

1	2	3	4	5
did not				helped a
help at all				great deal

32. Some women experience imagery of their labor and birth progressing consistently and "quickly". Sometimes they plan to image this "labor augmenting" imagery and sometimes it occurs spontaneously.

a) Did you ever experience any "augmenting" imagery during the pregnancy prior to your VBAC? **Circle one:** Yes No

b) Did you visualize "augmenting" imagery during the pregnancy prior to your cesarean? **Circle one:** Yes No

If you answered yes to a), please answer c) and d) regarding your VBAC experience.

c) What did you see and/or feel during this augmenting imagery you experienced prior to your VBAC? Please explain in as much detail as you can.

d) to what extent did this imagery help you to have a VBAC?

1	2	3	4	5
did not				helped a
help at all				great deal

33. Some women experience specific imagery in their actual VBAC labor at the point at which a cesarean was "indicated" in the labor prior to the actual cesarean. That is, if they dilated to 4 cm. in the labor prior to the cesarean, they may visualize during the VBAC labor when they get to 4 cm. Sometimes this imagery is planned and sometimes it occurs spontaneously.

a) Did you visualize anything specific at that point in your VBAC labor?

Circle one: Yes No

If you answered 'yes' to a), please answer b) and c).

b) What did you see and/or feel? Please explain in as much detail as you can.

c) to what extent did this imagery help you to have a VBAC?
effect effect

1	2	3	4	5
did not				helped a
help at all				great deal

34. If you ever visualized birthing vaginally, either prior prior to and/or during your VBAC labor and birth (ie. if you answered "yes" to question 28.a and/or 31.a), please answer the following questions.

a) Did you have an inside view - seeing what you would see when you are actually birthing vaginally?

1	2	3	4	5
no inside				inside view, like
view				being there

b) Did you have an outside view - as if you were watching yourself birth vaginally on video?

1	2	3	4	5
no outside				video image
view				

c) Did you feel the actions and sensations as if you were actually birthing vaginally?

1	2	3	4	5
no feelings				vivid feelings

d) How would you describe the detail of your vaginal birth imagery?

1	2	3	4	5
little				very
detail				detailed

e) In your mental imagery how difficult was it to direct or control the picture or feeling of a vaginal birth?

1	2	3	4	5
impossible				very easy
to make it				to
happen				direct/control

f) How would you describe the images when you visualized birthing vaginally?

1	2	3	4	5
mostly				mostly
postive				negative

g) After visualizing a vaginal birth, how did you usually feel?

35. If you visualized birthing by repeat cesarean prior to and/ or during your VBAC labor and birth (ie. if you answered "yes" to question 29.a and/or 31.b), please answer the following questions.

a) Did you have an inside view - seeing what you would see when you are actually birthing by repeat cesarean?

1	2	3	4	5
no inside				inside view, like
view				being there

b) Did you have an outside view - as if you were watching yourself birth by repeat cesarean on video?

1	2	3	4	5
no outside				video image
view				

c) Did you feel the actions and sensations as if you were actually birthing by repeat cesarean?

1	2	3	4	5
no feelings				vivid feelings

d) How would you describe the detail of your repeat cesarean birth imagery?

1	2	3	4	5
	little			very
	detail			detailed

e) In your mental imagery how difficult was it to direct or control the picture or feeling of a repeat cesarean birth?

1	2	3	4	5
impossible				very easy
to make it				to
happen				direct/control

f) How would you describe the images when you visualized birthing by repeat cesarean?

1	2	3	4	5
mostly				mostly
postive				negative

g) After visualizing a repeat cesarean birth, how did you usually feel?

36. If you experienced any of the previously mentioned types of imagery, please answer the following question:

How did you hear about the use of imagery?

- a) from a specific person (please name ie. midwife etc.)
- b) from a specific book or article (please name)
- c) from another source (please specify)
- d) was something I did by myself

Thank-you for your time and participation!

APPENDIX C

The Role of Imagery After a Negative Event:
The Use of Imagery in the Vaginal Birth After Cesarean Experience

THESIS PROPOSAL

Presented to the Department of Kinanthropology
in Partial Fulfillment of the Requirements for the
Degree of Master of Science

by

Anne Pitman-Davidson

Department of Kinanthropology
University of Ottawa
1989

Table of Contents

Chapter	Page
1 <u>INTRODUCTION</u>	
Introduction.....	60
Why Study Imagery in VBAC Mothers? - A Rationale.....	61
Imagery in sport.....	61
Is further study of imagery warranted?.....	61
Can sport psychology benefit from studies in other areas?.....	61
The psychological link between athletics and birthing.....	62
Birthing and imagery.....	63
Why study VBAC mothers instead of athletes who have had negative competitive experience?.....	64
Purpose and Importance of the Study.....	65
Subject Limitations.....	67
Birth as Competition.....	68
Childbirth and Control.....	69
2 <u>BACKGROUND LITERATURE</u>	
The Cesarean Epidemic.....	72
Repeat Elective Cesarean Section.....	76
VBAC - Physical Aspects	80
3 <u>LITERATURE REVIEW</u>	
Imagery in Sport - A Framework.....	85
VBAC - Psychological Aspects.....	87
Imagery in Childbirth.....	90
Imagery in VBAC.....	94
4 <u>METHOD</u>	
Overview.....	100
Selection of Subjects.....	100
Instrument Development.....	101
Collection of Data.....	102
Analysis of the Data.....	102
Recommendations to Sport Psychology.....	102
<u>REFERENCES</u>	103
<u>APPENDIX A: VBAC Mothers Questionnaire</u>	108
<u>APPENDIX B: Analysis Descriptions</u>	119
<u>Appendix C: Amendment to Thesis Proposal Subsequent to Committee Meeting</u>	127

CHAPTER 1

Introduction

Introduction

Research in sport psychology examines the performance of athletes in competition and the psychological techniques through which they can prepare to train and compete. One such technique used by athletes is "imagery" or "visualization". Imagery has been defined as a practical use of the imagination to "create what you want in life" (Gawain, 1978, p.2). Hutchinson (1985) adds; "the language of the imagination is images. Images are pictures, sounds, feelings, tastes, and smells you construct rather than experience directly through your senses" (p.32). Although sport psychology literature has made reference to the importance of imagery in practice and competition, only recently has research shown a clear correlation between quality imagery training and Olympic achievement (Orlick and Partington, 1988). This valuable research is only a beginning. In order to be more effective, sport psychology consultants need detailed information on how imagery can work with various types of performers competing in a variety of situations. In particular, information is needed on how to help an athlete deal with a negative competitive result through imagery. One avenue of future research is to continue to study athletes. Another possibility is to study and learn from people using imagery in other physical and stressful situations. For example, we can study women undergoing stress and performance demands in pregnancy and labor. As described below, an excellent population to study is women who have experienced vaginal birth after cesarean (VBAC) and who had their primary unwanted cesarean (a negative event) for "dystocia", a diagnosis defined as a "difficult labor" (Schlater & Pernoll, 1987, p.441). (In practice, dystocia refers to a labor which has slowed or stopped.) Possibly, we can learn from their use of imagery in dealing with their childbirth experience and apply this vital information to other women in similar childbirth situations and to athletes who may find similar uses of imagery helpful in achieving their goals.

Why Study Imagery in VBAC Mothers From A Sport Psychology Perspective? - A Rationale

Imagery in Sport

Recent study has shown that our top Canadian athletes use quality imagery (Orlick and Partington, 1988). A plethora of studies in the recent years have underlined the usefulness of imagery in sport (see Chapter 3). Current studies at the University of Ottawa are exploring the role of imagery with special populations of athletes ie. young children, blind athletes, ultramarathoners and injured athletes.

CONCLUSION 1: Imagery is important to the study of Sport Psychology.

Is Further Study of Imagery Warranted?

Although there is much information on the importance of quality imagery, sport psychology has not focused on the usefulness of imagery in specific situations that all athletes confront at one time or another - specifically, the need to deal with a negative result.

Sport Psychology requires more knowledge on using imagery:

- to help the psychological healing from negative competitive experiences. Although we are beginning to understand how athletes can benefit from using imagery to help heal from physical injury, there is no available research on dealing with emotional trauma.
- to get past the "blocks" or negative memories of the previous performance.
- to regain the belief and confidence in one's abilities to perform.
- to help an athlete continue to train under adverse conditions ie. coach/family want him to quit, losing his carding privileges.

CONCLUSION 2: Further studies are needed in imagery, particularly studies of its effects following negative events.

Can Sport Psychology Benefit From Studies In Other Fields?

A case in point describes how all disciplines benefit from interdisciplinary learning:

Imagery, particularly healing imagery, has long been the focus of spiritual and Eastern philosophies. Recently, forward thinking doctors in the North American medical community **borrowed** this knowledge of healing imagery and began to use it as a compliment to medical treatment. The most famous case of this partnering is that of the work of Simonton et al. (1978). These doctors worked with patients diagnosed with medically incurable cancer and were given one year to live. To these patients, the Simontons and Creighton introduced a program of relaxation and imagery (in addition to medical treatment). Two years later, 40% were still alive, with 22% completely cured. This work has resulted in continued research and the development of many alternative programs for those wishing to heal themselves using imagery in addition to or in place of standard medical practices.

Recently sport psychology has **borrowed** this knowledge of healing imagery, and has used it to explore further the psychology of athletes. Ievleva (in press) surveyed athletes with knee and ankle injuries to explore the role of imagery in rehabilitation. She found that imagery was related to faster recovery times. This work has furthered our understanding, from a sport psychology perspective, of the importance of healing imagery. The medical community will undoubtedly **borrow** Ievleva's work to further explore healing in a medical setting. This constant exchange of interdisciplinary knowledge and perspectives begins to shape a more global understanding of the ways in which the mind can affect the body.

CONCLUSION 3: Sport Psychology can benefit from studies in other fields.

The Psychological Link Between Athletics and Birthing

For the purposes of this study, it is important to understand how these two areas are similar in order that fruitful research in one area can be integrated, researched and applied in the other.

Both birthing and athletic events:

- are intense physical and psychological occurrences (arguably, the birth experience may be more intense both physically and mentally)
- involve pain, and thus require means to work with and beyond the pain.

- benefit from physical and mental preparation.
- may be competitive (see section on Birth as Competition p. 68).

Further, the VBAC experience and athletic experience following a negative result share more similarities:

- unwanted cesareans and negative results in sport are noxious experiences, after which women and athletes may feel a range of similar negative emotions.
- physical and mental work is required to get past these negative events. This work requires dedication and singular conviction because just as it is difficult to continue after "failing" to perform in an important athletic event, it is very difficult to attain a vaginal birth after cesarean.
- both may be critical and salient events in the lives of athletes and women (depending on the importance of the athletic event).
- both require focussing on the internal self and the job at hand in order to avoid distractions (ie. other competitors, scores/ hospital staff, fetal monitors).

CONCLUSION 4: There are clear similarities between the birthing experience and the athletic experience.

The VBAC experience is very similar to the athletic experience following a "negative" performance. It follows that the study of one experience could benefit the other.

Birthing and Imagery

The literature suggests that pregnancy and birthing is a period of great potential for imagery (see section on Imagery and birthing, p.44). Pregnant and laboring women may be very open to both pre-planned and spontaneous imagery.

CONCLUSION 5: The birthing environment is likely a fertile ground for the study of imagery.

Why Study VBAC Mothers Instead of Athletes Who Have Had Negative Competitive

Experiences?

(a) by definition, VBAC mothers have experienced a negative event (ie. the cesarean birth). Accordingly, a study of imagery in VBAC mothers is a study of imagery in individuals who have experienced a previous "negative" or traumatic result (a cesarean birth is defined as negative to these women - see section on Birth as Competition, p. 68). Furthermore, VBAC women have experienced a similar intense negative psychological experience, (again, see section Birth as Competition, p. 68). A researcher would have trouble finding a group of athletes experiencing the same consistent degree of emotional grieving over a loss.

(b) it is a psychological study with fewer confounding physical factors. That is, there are fewer physical variables than there would be with athletes ie. physical variables such as conditioning, injuries, overtraining etc. may have had an effect on their negative performance. A study with VBAC mothers previously diagnosed with dystocia has many fewer physical confounding factors - if a woman, first diagnosed with dystocia, then has a VBAC, we know that her body is physically able to birth vaginally, and the work that preceded the VBAC may be largely psychological.

(c) there is only one "failure" (cesarean birth) and one "success" (vaginal birth). Thus, the effect of imagery is easier to measure.

(d) the healing and psychological preparation for a VBAC will likely be at a conscious level. Because it is difficult to attain a VBAC in our medical community, decisions and psychological preparation will often be conscious and remembered.

(e) as reported above, there exists the belief that during pregnancy and birth women are very open to spontaneous visualizations. As such, this study may find many salient images that may work with athletes but that athletes may not have experienced or considered.

(f) time frame - it would be difficult to find a group of athletes with the similar intense negative performance experiences at the same time.

(g) VBAC mothers are accessible and more than willing to tell their story.

FINAL CONCLUSION:VBAC mothers are an excellent sample for the study of imagery, and in particular, the study of imagery following a negative or traumatic event. The similarities between birthing and athletics make such a study of great value to sport psychology.

Purpose and Importance of the Study

The purpose of the present study is to learn about the role of imagery after a negative performance. Specifically its purpose is to explore the experience of VBAC after a primary cesarean indicated by dystocia - to determine the quantity and quality of imagery used, to discover if imagery is helpful in healing past negative birth experiences, and to determine its usefulness in preparing for a VBAC, and its role in the VBAC itself.

While the present study was not designed as a comparative study (athletes to laboring women), it is hoped that athletes can learn from the imagery skills employed by VBAC women; particularly athletes who have "failed" to perform in the past and who hope to, against all odds, perform "successfully" in the future. Possibly the effect of information regarding the efficacy of imagery after a negative event, may encourage young athletes and veteran athletes to continue training and even improve their training after a negative or traumatic event.

This study is also important in terms of advancing the systematic literature regarding the psychological aspects of birthing and birthing vaginally after a cesarean. A study of this nature will be of interest to cesarean mothers who may be in need of skills, like visualization, to help cope with their cesarean experience. In addition, this study will provide information to women who hope to have a VBAC, in terms of specific imagery found helpful by other VBAC mothers.

Approximately 20% of Canadian births (in 1985/86) are by cesarean section (Statistics Canada, 1989). Most cesarean mothers can feel a wide range of negative emotions after an unwanted cesarean (Marut and Mercer, 1979; Alfonso, 1981; Laufer et al., 1987; Lipson and Tilden, 1980). In addition, a cesarean entails a long physical and emotional grieving and healing process. When these women become pregnant again, they are either scheduled for a repeat cesarean or they attempt a vaginal birth after cesarean (VBAC). A large

majority of these women (95% in the U.S.) end up with a repeat cesarean (Notzon et al., 1987). Only 5% of women with a previous cesarean have a VBAC.

Women who choose to attempt a VBAC are swimming against the current of social and medical expectations. In this country most hospitals, doctors and often friends and family accept the dictum "once a cesarean, always a cesarean". A VBAC demands a great deal of psychological work and support, to first grieve and learn from the cesarean experience and then to turn the experience around and birth vaginally (Cohen and Estner, 1984; Richards, 1987). This psychological battle may be amplified for women whose primary cesarean was performed for dystocia, as often the focus of labor "dysfunction" is the mother.

While imagery has long been established as a critical sport skill, researchers in childbirth are only more recently beginning to see its potential value. Childbirth imagery has been the topic of only two studies (Horan, 1973; Wolf, 1986). These studies were exploratory in nature and the methodology was less than rigorous (both had only one subject). Bates and Turner (1985) conclude in "Imagery and Symbolism in the Birth Practices of Traditional Cultures" , that more research on imagery is needed in our culture:

Research on imagery and symbolism in childbirth could help the design of environmental settings for child delivery appropriate to the psychological needs of the individual mother, and develop imagery techniques which relate specifically to the physiological sensations of labor as constructive and positive communications from her body. Psychological techniques using imagery have been shown to have considerable potential in dealing with serious illnesses such as cancer and in other clinical settings. It is an open question how much could be achieved by paying more attention to the relationships between psychological imagery and the physiological and experimental dynamics of labor (p.34).

The present study will explore the role of imagery in women who have had a diagnosis of dystocia during their primary cesarean. Due to the frequency of this diagnosis, the medical community is beginning to demand more research on the causes and treatment of dystocia. The National Consensus Conference on Aspects of Cesarean Birth Report, a Canadian report issued in 1986, recommended many areas for future research. Regarding future research in dystocia, the report concludes that researchers may wish to test "the value of alternative methods in the prevention and management of dystocia: for example, ambulation, nipple stimulation, position in labor" (p.9). While continued research into these physical modifications to labor is

indeed important, psychological interventions, like imagery, are important to consider for women who are, perhaps, experiencing dystocia in labor or who have experienced it in past labors.

There is little research on the psychological aspects of VBAC's. Further, there are no available studies regarding the psychological after-effects of a diagnosis of dystocia, as distinct from any other cesarean indication. Informed lay literature is available, some of which directs women toward developing visualization techniques. Systematic studies, however, have focussed only on how women make the decision between VBAC and repeat cesarean. There is no current research on whether women use imagery and find it necessary and/or helpful in following through with their decision to attempt natural childbirth.

Subject Limitations

This study will not select subjects with the absolute indications for primary cesarean sections ie. maternal pelvic contraction, prolapse of umbilical cord, hemorrhagic conditions (complete placenta previa, placenta abruptio) and stubborn transverse presentation (Cohen and Estner, 1984). Cesareans done for these reasons are deemed medically necessary for the safety of the mother and/or the child. These conditions are very rare (Cohen and Estner, 1984; VBAC Association of Ontario Statistics, 1988).

Also we will not consider women with "grey area" indications as subjects. These are; mothers with diabetes or heart disease, partial placenta previa, active herpes, RH hemolytic disease and failed induction to end toxemia in pregnancy. Primary cesareans done for these reasons are sometimes medically necessary depending on individual differences (Cohen and Estner, 1984). These indications are also quite rare (Cohen and Estner, 1984; VBAC Association of Ontario Statistics, 1988).

The remaining indications for cesareans are termed "relative" by Cohen and Estner (1984). These indications are considered controversial in both the medical and lay community (Clark et al., 1984; Cohen and Estner, 1984; Eglinton et al., 1984; Lavin et al., 1982; Meier and Porreco, 1982; Paul et al., 1985; Richards, 1987) and are responsible for the rapid rise in cesarean rates (Eglinton et al., 1984; Porreco, 1985; Shiono et al., 1987). They are; dystocia (cephalopelvic disproportion

and "failure to progress"), breech presentation, fetal distress, failed induction, prematurity or low birthweight. These are much more common.

Of the above relative indications, the present study will consider only subjects whose indication for primary cesarean was dystocia, cephalopelvic disproportion (CPD) and "failure to progress", because this diagnosis may have a more obvious psychological base. Specifically:

a) cesareans done for dystocia are said to be largely anatomically unnecessary, ie. they may be iatrogenic or the progress of the birth psychologically impaired (Cohen and Estner, 1984; Richards, 1987; Peterson and Mehl, 1984).

b) as such, there is no anatomical reason for dystocia to recur in subsequent pregnancies

c) the experience of being told that one's pelvis is completely inadequate or that one's body labours "abnormally" may have unique and negative psychological repercussions. Therefore it would be fruitful to explore the psychological work that must precede a vaginal birth after a cesarean indicated by dystocia.

d) studies show (Clark et al., 1984; Eglinton et al., 1984; Lavin et al., 1982; Paul et al., 1985; Meier and Porreco, 1982) that women whose primary cesarean was indicated by dystocia have a much lower VBAC rate than women whose cesarean was done for any other relative indication. There is a need therefore to explore what "works" for women who are successful in their trial of labor, in order to better understand how to help other women (and by analogy, athletes) who have experienced a negative and perhaps traumatic event.

Birth as Competition

Today there is tremendous pressure on women, quite apart from their personal needs and desires, to birth the "right" way. But unlike athletics, no one gains from competition in birthing, and value judgements based only on whether a woman has a "good" birth can only deepen the pain of a cesarean.

"We can never know all the factors creating such a synthesis (birth), nor can we always assume that a complication is bad. Labor and birth is the process through which a woman becomes a mother. We are not wise enough to claim to know the "right" or the "best" way a woman should give birth..."
(Peterson and Mehl, 1984, p.102)

While there are countless women for whom a cesarean is an assault, we must also recognize that there might be those who prefer to give birth surgically. It is important to point out that the author of this study is not defining cesareans as "bad" or natural births as "good". As Peterson and Mehl (1984) point out, the term "normal" when used to describe birth, "is not a value judgement... but a statement of biological principle." (p.30). This study considers women who have themselves labelled their cesarean as less than satisfying (or "negative") and have sought out their alternative, a VBAC. This author is interested in how women who are unhappy with their cesarean use visualization to cope with their loss and conquer the hurdles presented by their past experience and the medical community to finally attain the birth they desire, a VBAC.

Childbirth and Control

"Control" is a controversial issue in childbirth literature, childbirth education classes and in actual birthing. Can (and should) women seek to control their childbirth experience and if so, can control be achieved through imagery? Is the present study, then, about controlling one's birth experience?

First, on a more general level, it is important to determine whether the mind can affect the bodies involuntary processes. Many disciplines give evidence of an effectual connection between the mind and the body, but this does not necessarily confirm the ability of the mind to control the body. In sport, the most successful athletes hone their imagery skills in practice and in competition (Orlick and Partington, 1988). In healing, visualization is used to help overcome cancer and athletic injuries (Ievleva, in press; Simonton et al., 1978). The strength of the mind/body connection is perhaps most clearly revealed by biofeedback, through which we can see how one can influence involuntary processes like heartbeat, blood pressure and brainwaves, by thinking relaxing thoughts and focusing on peaceful images (Jones, 1987).

Childbirth is also evidence of the mind/body connection - the way the mother thinks and feels affects the way she gives birth (Cohen and Estner, 1984; Jones, 1987). Elizabeth Noble (1983) in "Childbirth with Insight" believes;

The uterus works involuntarily, but is very sensitive to discord in the mother's body and mind. Labors can slow down and even stop in reaction to such things as a change in the external environment

during admission to a hospital or negative attitudes in outsiders, family, friends, or the mother herself.
(p.79)

Early studies have shown that the level of an expectant mother's fear is significantly correlated with birth complications (David and Devault, 1962; McDonald, 1965; Fierra, 1965). For example, physiological data suggests that the hormones released under stress can impair labor for the mother and baby; higher plasma cortisol and epinephrine levels are linked to longer first and second stage labors and increased corticosteroids and adrenocorticoid steroids can decrease uterine blood flow and amount of oxygen the baby receives (Burns, 1976; Lederman et al., 1978).

In contrast, perceived support, such as security in a husband's presence, can produce shorter and less painful childbirth experiences (Kelin, 1981 in Shearer, 1982). The existence and popularity of childbirth education classes stems from the belief that psychological events or conditions can have an effect on birthing.

The above evidence of the effectual nature of the relationship of body and mind is impressive, yet it does not suggest, for the purposes of this study, that we ultimately can directly control involuntary systems of the body. For example, we can have an effect on our blood pressure, but not by demanding it go down; instead, we relax and visualize a peaceful scene or a peaceful image specific to blood pressure. We provide the psychological environment for our body to relax. We allow it to happen. Similarly with labor:

When it is time for the baby to be born the uterus will, of course, contract regardless of how a woman feels about her labor. Her baby will be born whether she thinks positive thoughts or despises every minute of childbearing. But the way she thinks, feels and believes will influence the discomfort and length of her labor - and the safety of birth for her and her baby. (Jones, 1987, p.5)

In 1975, Willmuth conducted a study to clarify the factors associated with positive hospital and delivery experience. When couples spoke of wanting more control in childbirth, they did not expect to dictate the birth of their child. Instead, most commonly they indicated that control in childbirth meant maintaining a sense of control in the interpersonal relationships with the staff. Specifically, they expressed a need for involvement in the decision making.

Literature suggests that women should not try to control birth. Like athletes, who must also work to prepare their mind and body to perform at its best and then relinquish control over the results of their work, women must also "let go". "Letting go" is a childbirth term to describe allowing the wisdom of one's body to direct one's labor. As Noble (1983) writes; "Letting go means living in the present. Ambitions lie in the future and fear of failure is based on past experience" (p.17). The attempt to control labor to fit into one's conception of what labor should be can itself slow or stop a labor, a condition called "psychological dystocia" (Baldwin, 1977). Instead of control, a woman can have a positive effect on the process of birth. However, like an athlete, a woman can only control what is, in reality, within her control (for example her medical or health support system and the imagery she chooses). These choices help birthing women and athletes to prepare the optimal physical and psychological environment for a peak experience.

CHAPTER 2

Background literature

The Cesarean Epidemic

In 1916 when Dr. Edwin Craigin stated "once a cesarean, always a cesarean", the national cesarean rate in the U.S. was less than 1% (National Institutes of Child Health and Human Development Report, 1980 as reported in Cohen and Estner, 1984). Today that dictum, for the most part, is still heeded, even though Craigin himself went on to explain the exceptions to that rule. Cesarean rates in the U.S. have increased steadily with the sharpest rise between 1970 and 1978 (Meir and Porreco, 1982). Today, our national cesarean rate is 19% (compared to the U.S. at 24%) and in Ontario the cesarean rate is 20.22% (VBAC Association of Ontario, 1988). There is no evidence that cesarean delivery rates are leveling off or decreasing (Shiono et al, 1987). Interestingly, the increase in cesarean use is concurrent with the trend toward natural childbirth. Perhaps the interest in natural childbirth is a reaction to the rise in technological birthing.

The monumental rise in surgical births is due, in part, to the changing indications for cesareans sections. Early in this century, cesareans were done as a last resort, largely as a result of an impacted pelvis (Wertz and Wertz, 1977). Now cesareans are more often done for dystocia, previous cesarean, breech and fetal distress (Anderson and Lomas, 1984; Cox and Smith, 1982; Korte and Scaer, 1984; Porreco, 1985). More cesareans are done now for the above reasons than ever before, but if one analyzes for the most frequent indications for cesareans, as did O'Driscoll and Foley (1983), one can divide cesareans into three equal categories (each accounting for 5% of all births): primary sections for dystocia, primary sections for all other indications, and repeat cesareans (p.4). According to the VBAC Association of Ontario statistics, primary Cesareans due to dystocia (the focus of the present study) are responsible for 31% of Ontario's primary cesarean rate (1986-87). The National Consensus Conference on Aspects of Cesarean Birth Report (1986) cites dystocia as being responsible for 50% of all primary cesareans in Canada.

Dystocia encompasses two relative indications; CPD (cephalopelvic disproportion and fetopelvic disproportion) and "failure to progress" (prolonged abnormal labor and uterine inertia). CPD is defined as a condition where the baby's head or whole body is said to be too large to pass through the mother's pelvis (Pernoll & Benson, 1987). Cohen and Estner (1984) maintain that CPD "is an easy diagnosis for a physician to make when your baby refuses to simply fall out of you" (p.17). Elizabeth Conner Shearer writes (1982) "all CPD means today is that the baby did not get out in the time the doctor thought s/he would" (p.33).

A diagnosis of CPD before the onset of labor is "particularly suspect" (Cohen and Estner, 1984, p.18); as labor begins a series of natural changes in a woman's body such as stretching of muscle fibers, thinning of the perineum and softening of the connective tissue and ligaments of the pelvis that allows the actual diameter of the pelvis to increase significantly. Also, the bones in the babies head are soft so that its circumference may be decreased to aid in delivery. Further, it is not uncommon for women whose primary indication for cesarean was CPD, to give birth vaginally to a much larger baby (Pauerstein, 1981; Riva and Teich, 1961).

A cesarean for "failure to progress" is ordered when a physician believes a woman's labor is not progressing at the "normal rate". Attempts may be made to induce or augment labor through medical or surgical methods of inducing labor like pitocin or rupture of membranes. If these are not "successful", a cesarean is imminent.

The "normal" time range is based on experiments by Emmanuel Friedman. He analyzed "normal" labors and found the average length of first labor was 12-14 hours (Korte and Scaer, 1984, p.147). Although Friedman did not intend for the results of this study to be used as a measuring stick for labor, women are often judged against this average; if labor exceeds this limit or seems to stall along the way, it may be perceived as "abnormally" long.

Functional definitions of abnormal labor progress, pioneered by Emanuel Friedman, are typically based upon a concept that the slowest progress experienced by a population of laboring gravidas is abnormal...the concept that slow progress constitutes abnormal progress permeates current obstetrical thinking, and although less easily documented, may also conceptualize the patients expectations. Thus, delivery for all patients in less than 24 hours has been advocated, as has intervention after two to four

hours of poor progress in active labor. (National Institutes of Child Health and Human Development Report as cited by Cohen and Estner, 1984, p.18)

The length of womens labors, if allowed, can vary widely. Cohen and Estner (1984, p.112) report a range of VBAC labors between 45 minutes and 44 hours, all resulting in healthy vaginal births. Many sources suggest that cesareans due to dystocia are largely iatrogenic, or doctor caused. Marieskind (1979 in Cohen and Estner, 1984), suggests that doctors, in general, support the rising cesarean rate for educational, economic and legal reasons. She lists several of these reasons in her report, and a selection from her findings may underlie the reasons for the increase in unwanted cesareans done for dystocia in Canada today. These include: increase in training and reliance in technological interventions; lack of training in natural birth options; adhering to standard repeat cesarean policy; threat of malpractice suits if the cesarean is not done; and physicians attitude regarding women and birth (p.11). Meier and Porreco (1982) list the following as contributing to the rise in cesareans; concern for maternal and fetal safety, patient and physician preference, medical/legal considerations, and established community practice patterns (p. 671).

When searching for the cause of the rising cesarean rate, we must also address the women themselves - is it possible that first time mothers want primary cesareans, either consciously or at a subconscious level? Indeed there may be an unknown proportion of women (albeit small) who prefer to have their first birth surgically. Cohen and Estner (1984) believe that many women do welcome cesareans, but only as the end to a poorly managed labor (p.2).

Regardless of cause, many women carry the emotional scars of their unwanted cesareans with them throughout their lives, and certainly into any subsequent births. The feelings of personal failure and lack of confidence regarding birthing may be amplified for women whose cesarean was performed due to dystocia:

Telling a woman that her pelvis is so deformed, so inadequate, has deeply psychologically destructive implications. A woman not only carries the feeling of inadequacy with her into her next birth, she carries it with her into her feelings about herself as a mother, as a woman, for the rest of her life. We must be extremely careful about the "psychological seeds" we plant as practitioners, as mothers, as partners or as friends. (Richards, 1984, p.110)

It is impossible to fully understand the desire which some women have for a VBAC if one cannot appreciate the cesarean experience. After an unwanted cesarean, women feel loss of control, fear, guilt,

anxiety and disappointment in the failure of their goals and expectations (Marut and Mercer, 1979). Mercer and Marut (1981) found women had a lowered sense of self-esteem and a sense of failure. Others have found women feeling regret, frustration, shame (Mercer, 1981) in addition to feelings of shock and grief (Laufer et al, 1987). Erb, Hill and Houston (1983) found some of these feelings (anger, frustration, disappointment and feelings of failure) may be strongest 7-12 months after the cesarean. Also, women commonly face a lack of support and understanding from friends and family (Cohen and Estner, 1984; Mercer and Marut, 1981). Many women are told that they should feel fortunate having had a cesarean:

"Lucky you" people say to cesarean women. "You didn't have to go through the labor. You took the easy way out. Don't you just love how cesarean babies heads are so nice and round? No labor pain and no pushing your guts out, and your medical insurance covered every cent. What a way to go!" Is it really? For those who choose to be mothers, pregnancy, labor, giving birth and lactation are part of that choice. A woman who accepts her total sexual functioning welcomes each of them. Like menstruation and menopause they are part of the harmonious flow and rhythm of her female life. (Cohen and Estner, 1984, p.271)

The range of feelings experienced through a cesarean may depend on many factors. In a 1980 study, Lipson and Tilden found the following variables are important influences on a woman's view of her cesarean: her plans and expectations for natural childbirth, her relationship with her doctor, the amount of time she had to prepare for surgery, reason for the cesarean, extent of her labor, presence of her husband during surgery and recovery, her contact with her infant and any medical complications (p.601).

A period of grieving and resolution often follows an unwanted cesarean. In the same 1980 study, Lipson and Tilden documented five stages apparent in this psychological healing process. Phase one, in the immediate postoperative hours, finds most women in a state of "shocked numbness". Women deal in the present only and repress or deny intense emotions connected with the cesarean. Yet these women seem to accept the cesarean, as necessary for the safety of the child and themselves.

In phase two, which ensues in the initial postpartum days, women feeling a combination of relief, guilt, anger and disappointment or envy towards others who have delivered vaginally. Lipson and Tilden found that many women felt a detachment or lack of enthusiasm for their baby. Physical coping was most

important in this phase ie. dealing with early ambulation, pain control, elimination, coping with I.V. paraphernalia, resumption of eating and attempting to sleep.

In Phase Three, from the hospital stay to approximately 8 weeks, an "emerging awareness" is precipitated by troubling questions and memories of the cesarean section are critically reviewed. Perceptions of stigma, feelings of failure and self image problems dominate.

The period spanning from two months postpartum until the end of the year is called Phase Four. An intermediate resolution of the feelings of phase three is necessary to "prevent ego disintegration" (p.604). Primary factors responsible for this resolution are recovery from surgery, strengthening of the mother-child relationship, confidence in mothering skills, repression/denial of cesarean and coping with feelings and memories of the cesarean. Intense feelings and memories may surface unexpectedly and women work through these memories passively or more actively ie. attending cesarean support meetings.

Finally, resolution is achieved in Phase Five. It is characterized "by a woman's feeling of acceptance and a sense of placing the cesarean in the perspective of the rest of her life" (p.605). For most women, this acceptance, if it happened at all, did not occur until a year or more after delivery.

Repeat Elective Cesarean Section

When the cesarean section was first developed, a classical incision was used. This incision cut vertically into the uterus in the upper portion of the most contractile muscle. In the 1920's, the "bikini cut" was adopted and practiced almost exclusively in order to allow for vaginal birth after cesarean. The incision was designed to reduce the risk of uterine rupture during labor after a cesarean as it was horizontal and low in a relatively non-contractile area of the uterus. The advent of this preferred procedure did not, however, suppress the growing numbers of repeat cesarean sections performed.

The United States now has a 95% repeat cesarean rate; previous cesarean is indicated in one third to one half of all surgical deliveries (Taffel, Placek & Liss, 1987; Placek, Taffel and Moien, 1983). In Ontario, the percentage of women who have repeat cesareans is 92.6 (VBAC Association of Ontario, 1988). As more and more women have primary cesareans, the larger the group becomes who might eventually have a repeat cesarean. "Hence", state Martin et al. (1988), "the birth management of pregnancies subsequent to cesarean

deliveries assumes proportionately greater importance as the current epidemic of abdominal deliveries unfolds" (p.719). Out of the fifteen indications Cohen and Estner (1984) list for cesareans, they say that the most likely person to have a cesarean is someone who already has had one (p.25). So pervasive is this indication that Dr. Gerald Stober (in Korte and Sear, 1984, p.180) suggests; "the best way to reduce the number of cesareans is to be sure the first one is necessary".

Who are these women who have repeat cesareans? We can divide them into three groups; women who attempt a VBAC and "fail", women whose cesareans are scheduled and women who consciously choose to have another cesarean.

An unknown proportion of women attempt a VBAC and "fail". Little is known about this group. There is reason to believe that, having had one or more cesareans, they are psychologically better prepared to have another, yet their disappointment in such an experience deserves some reflection.

The largest proportion (based on information from personal communication with support groups - Aug.-Dec., 1988) of women having a repeat cesarean can, simply stated, be divided into one of the following two groups.

An unknown proportion of repeat cesareans are routinely scheduled. Women in this group may be unaware of any other option; perhaps this is due to lack of interest, lack of information, or perhaps these women are misinformed by doctors. Perhaps these women, as suggested by Hausknecht and Heilman (1978), simply want to avoid making such a momentous decision (p.36) as choosing between a repeat cesarean and a vaginal birth.

Secondly, there is an unknown proportion of cesarean mothers who choose to have another surgical birth. McClain (1985) found women who chose a repeat cesarean had positive memories of their primary cesarean and chose repeat cesarean to select a date of birth, to aid in planning their life, to avoid labor or to have a tubal ligation. Similarly, Miner (in press) reported that women who chose a repeat cesarean believed cesareans were safer, had positive perceptions of previous births, desired tubal ligation and de-emphasized immediate contact with the baby. In addition, these women believed that vaginal birth would

not be "successful". Meier and Porreco (1982) also found that fear of failed labor was an important issue with women who chose repeat cesareans - it was listed more often than any other reason for electing surgical delivery.

It is unknown whether women who choose repeat elective cesareans are making an "informed" choice regarding the risks of this surgery. Silver and Minogue (1987) reported that in their study, when women were given the choice of VBAC and repeat cesarean, 57% chose the latter. The authors suggested;

Such a low selection rate for a clearly better option [VBAC] by decision analysis might suggest that clear information is not being provided, that inadvertent coercion might be occurring or that other significant factors influencing patient choice have not been included. (p. 233)

Cohen and Estner (1984) also stress the lack of "informed" choice in hospitals today, but they question the appeal of "natural" childbirth as an inviting option: with a 75-90% episiotomy rate added to 20% cesarean rate, they estimate that less than 5% of women achieve their ideal "pure birth" (p.118). A recent article in the New York Times (Brozan, 1988, Nov.13) stated that "doctors and other experts around the country agree that the definition of natural childbirth is changing to include any birth in which the mother is awake and delivers vaginally. Needless to say, there are many childbirth educators, midwives, doctors and pregnant women who would protest this conclusion.

Sources agree that a great deal of the responsibility for the inflated repeat cesarean rate lies with the medical profession (Lavin et al, 1982; Meier and Porreco, 1982; Saldana et al, 1979; Silver and Minogue, 1987; Seitchik and Rao, 1982; Riva and Teich, 1961). Early in this century repeat cesareans were necessary for many reasons, for example, the high rate of classical uterine rupture due in part to primitive suturing materials and surgical technique and unsterile conditions in emergency situations (Cohen and Estner, 1984 p.81), lack of blood banking and adequate means of fetal monitoring (Saldana et al., 1979, p.555). Today physicians must take responsibility for the high incidence of unnecessary repeat cesarean sections: they may be ignorant of VBACs, have lack of training in vaginal birthing, may have little investment in helping women avoid surgery (Cohen and Estner, 1984 p.113) and/or they may tend to follow the established obstetrical practice of "once a cesarean, always a cesarean" (Marieskind, 1979 in Cohen and Estner, 1984,

p.11). "Scare tactics" (Cohen and Estner, 1984, p.89) or inappropriate information are handed out, directed at a woman's innate tendency to protect herself and her baby. Books are filled with inaccuracies. For example, Richard Hausknecht M.D. and Joan Rattner Heiman, wrote "Having a Cesarean Baby" with the intention of helping women to better prepare for cesarean births. In it, they gave a vivid (and inaccurate) description of vaginal birth;

[a cesarean baby]...skips the prolonged squeezing and pressure other babies go through during labor and passage through the birth canal. Usually, for anywhere between two and fifteen hours, most newborns' heads are used as battering rams, molding and reshaping until they reach the outside world. This doesn't happen with a cesarean baby, except to some degree, if there has been a long labor before surgery. (p.43)

The image of the baby's head as a "battering" ram may be a difficult one for expectant mothers, particularly ones wanting a VBAC, to diffuse.

Perceived risk of uterine rupture is the basis on which doctors perform routine repeat cesareans (Meier and Porreco, 1982). When doctors were asked to explain their rationale for performing repeat cesarean sections, 19 of 23 doctors listed the risk of uterine rupture as the most salient reason.[more on the unsubstantiated risks of uterine rupture in the next section - the physical aspects of VBACs] Other reasons for performing a cesarean were as follows; customary practice, catastrophic hemorrhage, scheduling allows availability of required personnel, patient request (only one doctor mentioned the latter).

There is conflicting evidence with regard to how women attend to doctors in making the decision for repeat cesareans. McClain (1985) found that while doctors opinions and medical statistics may be taken into account, they do not stand foremost in a woman's decision about how she should birth after a cesarean. However, Meier and Porreco (1982) found that 21 out of 39 women give the highest priority to physicians opinion when trying to decide between a trial of labor and an elective repeat cesarean section. Husbands were the second most important influential individuals in reaching this decision. The importance of a woman's own opinion or needs was not addressed in this study.

VBAC - Physical Aspects

Studies have shown that VBACs (with low transverse incisions) are safer for both mother and child (Gellman et al., 1983; Jarrell et al., 1985; Lavin et al., 1982; Morewood et al., 1973; Paul et al., 1985; Porreco and Meier, 1983; Riva and Teich, 1961; Silver and Minogue, 1987). O'Driscoll and Foley found that the observed overall decrease in observed perinatal mortality is not causally related to the increase in cesarean rates. They suggest, using statistics gathered in Dublin, Ireland as an analogy, that the "same perinatal mortality can be achieved with less than one third of the number of cesareans now performed" (p.4). Rupture of the uterine scar, apparently a major reason for performing routine repeat cesareans, occurs infrequently - only if the wound has been improperly sutured, or its healing has been complicated by infection (Meier and Porreco, 1982), and rarely affects the safety and health of mother and child (Merrill and Gibbs, 1978). Pauerstein (1981) found the risk of maternal death in trial of labor due to scar rupture was 1/40 that of maternal death at the time of repeat cesarean. In addition, he found that perinatal death due to rupture was 1/4 that of perinatal death due to repeat cesarean. There is a sense in the cesarean literature that if the incision is intact at term, it has "proved its integrity" (Sweet, 1983, p.72) as rupture normally occurs during the pregnancy, if it is going to happen at all.

A cesarean section, which entails major abdominal surgery, is much more dangerous to mother and child than vaginal birth. Case et al (1971) stated that cesareans were 3-7 times more dangerous than vaginal births. Pettiti et al. (1982), stated that it was 2-4 times more hazardous to be delivered by cesarean section than to be delivered vaginally, with all other considerations being equal" (p.11). Meier and Porreco (1982) found that patients attempting VBAC have the same morbidity of those with first time vaginal deliveries. Also, patients attempting repeat cesarean have the same morbidity as primary cesareans.

As a result of the evidence reviewed there are many doctors who consider it their professional responsibility to increase the application of labor:

Anything other than a trial of labor after a previous cesarean section is unethical because trial of labor options holds the best outcome for both the individual patient and the patient population as a group. (Silver and Minogue, p.232)

Physicians must be diligent in informing women as to the risk of repeat cesareans. Barry Schiffen, Obstetrician, in Richards 1987, states;

If a repeat section is chosen over a vaginal delivery, the woman should be informed for medical and legal reasons that she has chosen the more dangerous of the two alternatives. (p.103)

Medical obstetrics and gynecology textbook used by Canadian universities today cites the National Institute of Health Consensus Developmental Task Force on Cesarean Birth (1981) as finding that "vaginal delivery should be associated with fewer delivery risks, require less anesthesia, pose a lower potential for postmortum delivery, involve a shorter hospital stay, save money, and encourage earlier and often smoother interaction between mother and infant (Schlater & Pernoll, 1987, p.454).

Canada's Society of Obstetricians and Gynecologists has, until recently, been without formal guidelines regarding VBAC. In 1985, Canada held a National Consensus Conference on Aspects of Cesarean Birth. Trial of labor was recommended for women meeting established criteria (singleton vertex presentation with one low transverse incision and no absolute current indication for cesarean). Trial of labor continues to be contraindicated for women with a history of classical, low vertical or unknown uterine incision or hysterotomy. The report reiterated some of the American facilities and personnel guidelines declared by the American College of Obstetricians and Gynecologists (ACOG) in 1985. These recommendations were; 24 hour blood banking, continuous electronic fetal monitoring, patient blood screening, immediate presence (throughout entire labor) of a physician capable of performing cesarean section, and the ability to move from "decision to incision" within 30 minutes (Placek and Taffel, 1988, p.514). In addition, the Canadian group recommended the following; antenatal evaluation by a qualified obstetrician, intrapartum notification of, and/or consultation with, obstetrician or surgeon to be involved in event of an emergency, and skilled evaluation of labor and routine maternal and fetal surveillance. It was felt, however, that the continuous presence of a physician was not necessary. Nor was continuous electronic fetal monitoring considered mandatory, although minimum standards (auscultation after a contraction every 15 minutes in the first stage and every 5 minutes in the second stage of labor) should be followed (National Consensus Conference Aspects of Cesarean Birth Report, 1986, pp.6-7).

The above facilities and staffing guidelines have met with considerable criticism. Porreco and Meier (1984) noted that these labor management facilities should be the same for any laboring woman, as emergency cesareans occur with the same frequency and for the same reasons (unrelated to the scar) for VBAC mothers as for any others. In October 1988, the American College of Obstetricians and Gynecologists released new guidelines for VBAC. Where previous guidelines had stated that "an attempt at vaginal delivery after cesarean childbirth appears to be an acceptable option" (Cohen and Estner, 1984), these guidelines recommended VBAC as a routine practice for cesarean mothers. In fact, the ACOG says that women with more than one cesarean should not be discouraged from attempting VBAC as there are no medical reasons to rule it out (Leary, 1988, Nov.27) It is quite likely that the Canadian counterpart of this organization (SOGC) will soon recommend similar liberal guidelines.

Even in the wake of changing recommendations by the governing medical bodies in the past decade, North American physicians have been slow in facilitating an increase in VBAC rates. A report was issued by the Ontario Medical Association in May 1987 titled "Guidelines on Reproductive Care: When The Pregnant Woman Does Not Accept Your Professional Advice". In this report doctors are warned that "in spite of any discussion and understanding previously reached with the patient, she may insist on trying a vaginal delivery at the last minute" (p.9). The report then suggests that the following action be taken:

It goes without saying that in this situation the dialogue that has taken place prenatally should have been exhaustive. Not only the possibility of uterine rupture should be discussed, but also it is essential to point out to the patient that she and her fetus are potentially exposed to the whole spectrum of complications of a laboring patient. You should be able to assure your patient that all essential facilities are in place and ready in the event if a decision to intervene has to be made quickly. (p.9)

There is no mention of informing the patient as to the risks of cesarean delivery or the advantages of vaginal delivery that are commonly discussed in the medical studies. Doctors are given no incentive to change and while it is still considered legally defensible to do a cesarean, Martin et al. (1988) cite that malpractice suits are now beginning to appear as a result of operative complications following repeat cesareans. Yet, VBAC rates remain low. The 1979 VBAC rate in the United States was a meagre 1.3% of women with a previous cesarean. By 1984, it had risen to 4.8% (Shiono et al., 1987). The latest statistics (VBAC Association of Ontario, 1988) in Ontario finds the VBAC rate at 7.6% (for 1986-87), possibly an

indicator of an upward trend. However, Shiono et al. (1987) caution that the increase in application of trial of labor has not stemmed the rising cesarean rate.

These North American VBAC rates are low in comparison to European countries (Hungary 32%, Scotland 39%, Bavaria 41% and Norway 43%) where VBACs are more standard procedure (Notzon, 1987). Many would suggest that even these European rates are low if you consider the small number, 4-10% (verbal communication with the VBAC Association of Ontario), of "necessary" repeat cesareans. (Czechoslovakia, Hungary, Belgium and Norway all had cesarean section rates of between 5-9% in 1981 (Notzon, 1987)).

The VBAC rates cited above reflect the percentage of women who end up birthing vaginally - but the percentage of women who were "allowed" to try laboring remains unknown. Shiono et al (1987) states that only 8% of women were allowed a trial of labor in 1984, and 51% of these had successful VBACs. Other studies have found a 39-89% VBAC possible for women who were allowed a trial of labor regardless of previous indication (Benedetti et al., 1982; Clark et al., 1984; Eglinton et al., 1984; Lavin et al., 1982; Meier & Porreco, 1982; Paul et al., 1985; Riva and Teich, 1961; Scitchik and Rao, 1982).

In reference to dystocia, those studies that separated the subjects by indication for cesarean, found that the VBAC rates for women whose previous cesarean was indicated by CPD and failure to progress ranged from 33-78% (Clark et al., 1984; Eglinton et al., 1984; Lavin et al., 1982; Meier and Porreco, 1982; Paul et al, 1985).

The VBAC rates, regardless of indication, reported in most of these studies are substantially higher than the VBAC rates in any country outside North America. Placek and Taffel (1988) state:

Thus VBAC remains low in the United States because of infrequent trials of labor, not because of infrequent successes when trials are attempted. (p.512)

While allowing women to labor is an necessary and obvious step towards a VBAC in the general population, it cannot be the only way to increase VBAC rates. Studies that allow women to labor show a

wide range of VBAC rates (as above, 39-89%). Obviously, there are other factors that enable women to birth vaginally after a cesarean.

In addition, there is no reference in these studies as to what kind, if any, psychological preparation was needed or what kind of psychological skills were used in labor ie mental imagery. We can hypothesize that the large differences found in possible VBAC rates may be due, in part, to differences in the psychological aspects of VBAC birthing. We can only hypothesize as to the effect of these psychological processes although midwives and VBAC counsellors, who encourage the development and use of psychological skills, like imagery, boast a 90-95% VBAC rate (personal communication with Ottawa midwives and counsellors - June-Dec., 1988).

CHAPTER 3

Literature Review

Imagery in Sport

Theoretical work in imagery in sport has focussed on an analysis of how imagery works. Two theoretical perspectives are predominant; the psychoneuromuscular theory and the symbolic learning theory.

The psychoneuromuscular theory proposes that imagery stimulates similar neural pathways to the muscles that would be stimulated by the actual physical performance of an athlete (Hale, 1982; Suinn, 1972). The symbolic learning theory suggests that movements become understood and acquired through using imagery as a coding system (Feltz and Landers, 1983)

Extensive literature reviews (Richardson, 1967; Corbin, 1972 in Mumford, 1985) have shown that imagery is useful in the acquisition and maintenance of sport skills, Feltz and Landers (1983) in an additional concluded that although there had been previous contradictory findings, using imagery to practice sport skills was better than no practice at all.

As a result of this research, many sport psychologists have introduced imagery into training programs (Nideffer, 1985; Orlick, 1986; Suinn, 1972; Unestahl, 1982, Vealey, 1986). These programs outline the skills required to reduce anxiety, promote relaxation, recover from injury, and learn and practice sport skills.

Recent studies have been important in furthering our knowledge of the quantity and quality of imagery used by athletes. A review of this research provides a framework for the present study on imagery in the VBAC experience. The quality of imagery has been the focus of many studies. Some of these studies have attempted to determine the most effective imagery perspective. Mahoney and Avenier (1977) studied two perspectives; external imagery and internal imagery. The external focus is described as predominately visual, somewhat like an athlete watching him/herself on videotape. The internal view may be predominately kinesthetic and perceived view is reported as being similar to what the athlete is actually seeing when they

perform the physical task. Some studies have concluded that the internal focus is the most effective (Mahoney & Avenier, 1977; Partington and Orlick, 1986) while others found no significant differences between the two perspectives (Meyers et al., 1979; Epstein, 1984; Mumford & Hall, 1985).

In 1986, Partington and Orlick explored the mental preparation of Canadian athletes involved in the 1984 Olympic Games. From extensive interviews of 75 Olympic athletes, they found that athletes used imagery "to prepare themselves to get what they wanted out of training, to perfect skills within training sessions, to make technical corrections, to imagine themselves being successful in competition, and to see themselves achieving their ultimate goal" (Orlick and Partington, 1988, p.112). With regards to "quality" imagery, they found that successful athletes used an "inside" view, "as if the athlete was actually doing the skill, and feeling the action" (p.113). In a survey conducted as part of the same study and returned by 160 Olympic athletes, the authors distinguished two types of imagery; pre-planned, where an athlete intends to visualize and daydreaming (or spontaneous) imagery, where images "just happen" involuntarily. Partington and Orlick found that 99% of athletes reported doing a significant amount of pre-planned imagery (at least once a day, four days a week, and about twelve minutes a session). Daydreaming imagery occurred frequently (at least two times a day, five days a week and an average of eight minutes per session).

They found that the reported quality of imagery in top athletes was meaningful. For male athletes, high quality imagery (ie. "feeling" imagery and the ability to control imagery) was correlated to Olympic percentile rank. For female athletes, imagery helped them to feel ready for competition, but was not correlated to their Olympic rank.

As a result of the research on imagery, sport psychologists are better informed on the scope of imagery used by top athletes, both in terms of quantity and quality. Such studies have imparted both important knowledge about imagery and have established a framework for further studies of imagery in other disciplines.

Due to the focus of past studies, however, little is known regarding the imagery found to be useful after a negative event. One might ask, how is imagery best used to heal from negative performance

experiences? More specifically, given an athlete with such an experience, how does imagery help prepare the athlete for future events? In the only reviewed references to dealing with negative events, Orlick (1986) recommends increasing positive imagery on "not- so-great" days and Ungerleider suggests developing new images to replace nonuseful ones. The present study explores the use of imagery after a negative event, a cesarean, and how imagery was used to prepare for a positive event, a VBAC.

VBAC - Psychological Aspects

A VBAC is a completely unique birthing situation. A woman wanting a VBAC must be aware that she desires something that is difficult to obtain in our medical community. A woman with one (or more) cesareans is seen, at least by most medical staffs, as unlike any other laboring woman - a "scarred uterus", a "high risk". To achieve a VBAC, a woman will likely have to search out a supportive medical team who will "allow" her a "trial of labor". As a matter of policy, the Midwife Association of Ontario will not, at this time, support birthing VBAC mothers at home (personal communication, Oct, 1988). If we assume that a birthing mother will be attended by a midwife and/or a doctor (ie. will not try to birth without either) a woman's birthing options are then defined by the guidelines set out by the governing medical establishment or perhaps a particular hospital or doctor. For those who labor at the hospital, a VBAC birth is normally monitored as recommended in the SOGC guidelines. There is often a sense of suspense and forboding at a VBAC birth;

It's hard to be relaxed when people are standing around watching the clock and waiting anxiously for your uterus to burst. (Cohen and Estner, 1984, p.90)

A woman who has a cesarean for any reason carries a physical scar to remind her of her cesarean, but some may bear psychological scars as well. Women "diagnosed" with dystocia may clearly remember how their bodies "failed" to progress or they may carry with them a belief in the "inadequacy" of their body (CPD). So in addition to the practical difficulties that face her, for example, finding a supportive doctor, she may also have a psychological battle to fight. The special difference for VBACs, reports Elizabeth Conner Shearer (1982) is "to know, trust and rely on their bodies to give birth...when their body did not 'work right' the first time" (p.32). For example, she may have very detailed, painful memories that compete

with image of her impending vaginal birth. Lynn Baptisti Richards, a midwife at many VBAC births and a VBAC mother herself, reports in "The Vaginal Birth After Cesarean Experience" (1987);

Often, the blocks which "caused" a woman to have a cesarean, reappear in her VBAC labor as hurdles that must be vaulted in order to deliver vaginally. (p.49)

In addition, some women report that labor may slow or stop at the point where a cesarean was called for in the previous cesarean labor. (Personal communication with Cesarean Support Group)

To accomplish a VBAC, one must be "informed, educated and determined" (Sweet, 1983, p.72). A cesarean mother must work very hard to provide the optimal enviromental and psychological birthing conditions.

It takes a lot of work. It's not something that you enter into lightly. I guess it's like a marriage in that respect. You have to spend a lot of time and a lot of effort. It's an experience I would recommend for anyone who has the nerve for it, who has the guts for it. It's not an easy thing to do. (Maria in The Vaginal Birth After Cesarean Experience, p.71)

As one woman noted with regard to the tremendous preparation a VBAC requires: "For us it wasn't so much third time lucky" as "third time prepared" (VBAC Assoc. of Ont. Newsletter, 1987).

Systematic studies of the psychological nature of VBAC are few. The thrust of VBAC studies has been focussed on studying the physical nature of the experience, yet the ability to birth vaginally after a cesarean section, like a first time vaginal birth, is much more than a physical event. Pauerstein (1979, ICEA Review as cited in Cohen and Estner, 1984), reports;

success in giving birth vaginally was not... related to the degree of cervical dilation attained in the previous labor or to whether the woman had labored at all. (p.20)

The psychological nature of birth is rarely addressed in medical studies, particularly in studies regarding VBAC's.

The science of twentieth century obstetrics has been inherently rational and concrete. The obstetrician can readily accept the effects of the mothers breathing upon fetal oxygenation and acid-base status in relation to the fact that a 'concrete' physical pathway can be traced directly from the mothers lungs through her bloodstream to the placenta and into the baby. What about fears and anxieties about motherhood or how feelings affect breathing patterns? (Peterson and Mehl, 1984, p.16)

Psychological studies on VBAC that exist focus on the factors considered when deciding how to birth after a cesarean section. McClain (1985) found that women's decisions were based on social expectations and goals as well as on medical advice (p 213). Miner (in press) found that women chose to have a VBAC because they had (1) negative perceptions of previous births and postpartum recovery, (2) great concern regarding insufficient contact with their infant, (3) a belief in the normalcy of vaginal birth and/or (4) incomplete resolution of previous birth experience.

The majority of studies on VBAC's, although not psychological in their perspective, inadvertently point to psychological factors in VBAC birth after a cesarean for dystocia. Research shows that women whose primary cesarean was done for dystocia have more trouble having a VBAC than women whose cesarean was indicated for any other condition; VBAC rates are substantially lower for women who had a primary cesarean for dystocia. Meier and Porreco (1982) cite a 78% VBAC rate when the cesarean had been for CPD/F to P and 92% when it had been for breech or fetal distress. Lavin et al. (1982) found women with previous cesareans for CPD had a 33% VBAC rate and all other cesarean mothers had a 74% VBAC rate. Eglinton et al. (1984) reported a 64% VBAC rate for CPD and 86% for breech. Clark et al. (1984) found a 64% VBAC rate for CPD/failure to progress and 82-100% rate for previous placenta previa/abruptio, breech or maternal illness. Paul et al. (1985) cites a VBAC rate of 77% for CPD and failure to progress and a 91% VBAC rate for previous breech indication. Lavin et al. (1982) reports that having a cesarean for a reason other than CPD increased the likelihood of vaginal birth.

What are the reasons for lower VBAC rates for women whose primary cesarean was indicated for dystocia? One might hypothesize that dystocia, an anatomical/ physiological indication, is recurring, so that less women with this indication would attain a VBAC. Two arguments refute this theory. First, doubt pervades both the lay literature and the medical literature regarding the physical necessity of cesareans for dystocia. Second, of those who would believe that the common indication of dystocia is based in a woman's anatomy, the above cited VBAC studies are held up as proof that in at least 33-78% of cases, dystocia is not recurring. Even if one believed that dystocia is at least in part an anatomical indication (ie. some women's pelvis's cannot birth a child or some women's uterus's cannot expell a child) that

could recur, it is unlikely that this alone could account alone for the 14-41% difference in VBAC rates found between women with previous cesareans for dystocia and any other indication.

Perhaps, then, the difference in VBAC rates between women whose primary cesarean was indicated by dysocia and women who had a cesarean for any other reason is largely psychological. Perhaps women who were diagnosed with dystocia have to work harder to believe in their ability to birth. Since none of the existing studies detail or statistically control for any psychological factors in VBAC births it is not known how much psychological preparation, if any, was done by these women or how psychological skills, if any, were used during birth.

Imagery in Childbirth

In the past, western thought has either ignored the effect of a mind/body connection during labor or has devised childbirth methods that attempt to use the mind to control the pain of childbirth (Earn, 1962). The focus of more traditional cultures is quite different. Their childbirth methods rely on the mind/body union existing within each woman to react to various images and symbols to aid in a woman's expulsion of her baby. Bates and Turner (1985), explored the birth practices of many traditional cultures. Among the many examples of "opening" imagery, they cite an example from Sheila Kitzinger: she referred to a custom in India, where a jar of grain is broken in order for the woman to see the grain falling out. Also in India, Kitzinger (as cited in Bates and Turner) reported that a tightly furled flower is placed beside the laboring woman in the belief that as it unfurls, the womans cervix will dilate. In searching for psychological theory to help explain the effects of such imagery, Bates and Turner offer the research on autosuggestion by C.L.Hull, who showed that when unaware subjects are presented with a human model performing tasks which involve leaning forward or backward, the subjects follow suit, although they remain unaware of this. Hull concluded;

The bodies of most normal persons tend, under favorable circumstances, rather uniformly to execute without voluntary or conscious intent, acts observed attentively or merely thought of. (Bates and Turner, 1985, p.32)

To the above, Bates and Turner (1985) add;

Indeed, he [Hull] maintains that internal representation is ultimately more effective here than actual perception. It would seem reasonable to suppose, then, that the mother participating in symbolic childbirth rituals emphasizing the releasing and expelling qualities of the environmental cues being presented to her. These would, in the manner described by Hull, intensify the physiological processes of release and expulsion (p.32).

Only two systematic studies are available on the subject of imagery and childbirth. The first by John J. Horan in 1973, described the relaxing images the author used with his wife in her labor. When the author described "covert pleasant images" he observed that his wife felt little pain and as a result, he suggests, required no medication until she was taken away to delivery.

A study by Wolfe in 1986, again using one subject, explored visualization during pregnancy;

The experience of visualization during pregnancy involves feeling a sense of being in control while experiencing pride in oneself, experiencing fear and how it interferes with visualization, and lastly connecting to a spiritual part of oneself. (912-B)

The above studies, while negligible in rigor, attempted to break ground in an area, visualization in pregnancy and labor, which had never before been documented.

It is unknown as to whether imagery is commonly practiced in the western world today, however, it is now described in the lay literature as one of the best ways to prepare for and work with the demands of childbirth. In order to attain the most powerful and effective imagery, most sources recommend "full-bodied imaging" (Hutchinson, 1985) or "multi-modality visualization" (Peterson and Mehl, 1984); imagery that uses all one's senses.

There is much lay literature on imagery and childbirth. "Mental imagery", suggests Carl Jones author of *Mind Over Labor* (1987), "is probably more suited to childbirth preparation than any other endeavor" (p.12). He believes that mental imagery works with and influences the right hemisphere of the brain, and that during pregnancy and labor, the right hemisphere is more active than usual. Thus, women during pregnancy and labor may be more open to images suggested to them and may be more likely to experience spontaneous images. Jones cites one childbirth educator as suggesting that using mental imagery in labor "links the mother up with her instinctive self" and he adds that using imagery helps a woman surrender to the inner event of labor. Regarding unnecessary cesareans, Jones suggests that if a

laboring woman is in the proper environment, shuts out the external world, and allows herself to go into her own psyche, "every medical institution would have cesarean rates of four or five percent rather than the twenty or thirty percent of most hospitals (p.21).

While Jones believes that imagery helps labor by activating the right brain and by facilitating the release of labor-regulating hormones, Peterson and Mehl (1984) explain that mental imagery benefits labor because real experience and visualization are encoded in similar ways in the brain through the limbic system. The secondary cortices of the brain enable humans to re-live an event or memory. In terms of imagery and childbirth:

Multi-sensory visualization for birth serves to offer a normal birthing experience which becomes imbedded in memory. A multi-sensory visualization offers choice of response on an emotional level, for the woman giving birth again, who has had a difficult or traumatic birth. (Peterson and Mehl, 1984, p.195)

Carl Jones suggests imagery for both pregnancy and labor. During pregnancy, it is effective because;

...You are in close touch with your instinctive self and inner resources during the transformative months of pregnancy. Mental imagery helps you tap these resources and attune to your instincts... Using mental imagery regularly during pregnancy often inspires practical changes in the mother's birth plans. As she focusses her mind on a desired goal, she may begin to think of concrete ways to bring about that goal (such as a different birthing place or caregiver). Using mental imagery may help clear away possible emotional hindrances that could inhibit normal labor. (Jones, 1987, p.14)

Mental imagery in pregnancy can be used to image a healthy baby and healthy uterine conditions. While there is no research to document its effects, Jones documents the belief of midwife June Whitson, who after teaching imagery of strong and intact membranes and crystal clear waters, found that premature rupture of membranes and waters stained with meconium were almost eliminated among her clients (p. 81). Imagery can also be used to change behavior and symptoms, such as morning sickness (Peterson, 1984, p.39).

Women may find imagery helpful in preparation for an impending birth. Jones describes a wide range of images that can be enjoyed during pregnancy. "Special place" images create a place of retreat; the "blossom" (p.79) helps to exercise the pelvic floor muscles; "radiant light" (p. 80) encourages a woman to centre on her changing body; "journey to the centre of the womb" (p.81) inspires confidence in the

body and the healthy childrearing process; a "place in the heart" (p. 84) invites potential conflicts to arise so that they may be resolved; "getting in touch with your unborn child" (p.86) helps a woman develop a relationship with her unborn child. The "snowflake" (p 95) helps a woman appreciate the perfection of birth; the "ocean" (p. 97) is a metaphorical way of imagining labor and; "the invitation" (p. 126) helps a woman chose a caregiver for her birth.

Imagery during labor can be useful in promoting relaxation and in facilitating opening of the cervix. Cohen and Estner write;

The birthing woman needs to imagine things that open, and let her body open at the same time. Doors open. Flowers open. Childrens eyes open wide. A woman opens her mind and her body to receive her lover. Open, let go, give into it. Let it happen. (p.246)

A mother who used imagery as reported in Mind Over Labor, said;

The imagery changed automatically during labor. Through most of the first stage I was seeing myself opening and focusing on the opening sensations of early labor. With the downward sensations of transition, I visualized my baby going deeper into the pelvis and traveling along the birth canal. (p.145)

Teresa Pitman in "A different focus - mental imagery in labor" (1988) uses the following example;

Cindy Priddle found it helped her to remember the diagrams she was shown during prenatal classes and to visualize the cervix opening as each contraction came, like a turtle-neck sweater being pulled over the baby's head. Focussing on that image helped her see the sensation as 'stretching' rather than 'pain'. When the doctor told her that the baby was in a posterior position (making for a more difficult delivery), she added the idea of the baby turning as the contractions pushed it towards the birth canal. Three contractions later, the baby was in the proper positon and ready to be born. (p.23)

Carl Jones suggests many images for labor; "giving birth at home in your mind" (p.117), "opening flower" (p.142), "the waterfall" (p.144), "the ocean" (p.144), "imagining the birth" (p. 144), "the cleansing breath" (p.147) and "the golden breath" (p.147) all help focus attention on the process of labor and help a woman to work with her body and surrender to the process of labor.

Visualization is only effective, says Jones, if the image works for the person involved. Jones gives the following example of an unconventional image that helped a couple relax and stay energized;

One couple focussed their attention on fruit picking. Sitting on the labor bed next to his wife, the husband painted a vivid verbal picture of picking raspberries and strawberries and occasionally counting the berries as they were put into the pail. Interestingly, the mother found this image relaxing only when her husband picked the fruit. Imagining herself picking took energy away from labor. (p.145)

Whatever the image used, it is most important during labor, to "keep the mental focus inside the body at the point of greatest sensation" (Panuthos and Janney, 1983, p.55).

Imagery in VBAC

There are no available studies which address the use of imagery in VBAC. Intuitively, it seems that imagery of a natural birth may be even more useful to a VBAC candidate, particularly one whose previous cesarean was performed for dystocia, to aid in her belief that she can birth vaginally. Imagery, then, can help a woman (especially a cesarean mother) relearn a healthier concept of childbirth (Peterson, 1984).

The lay literature specifically recommends imagery for women seeking a VBAC. First, it can help with the healing process necessary after a cesarean. Gayle Peterson and Lewis Mehl in "Pregnancy as Healing" suggest that a woman must resolve the past before she can again birth;

Accepting the past "self" that gave birth renders a woman free to forgive herself. Connecting, reliving and healing past loss...yields a woman more access to her resources for coping with the upcoming labor. The experience of acceptance or healing reclaims parts of herself needed for the next labor...For many women, the experience of birth has been associated and inextricably linked with traumatic experience. Because emotion serves as the "glue" of human perception, traumatic memories can be triggered when the physiological state of labor is re-entered. If an experience of forgiveness has already occurred during visualization, the emotional acceptance will also be experienced in association with the physiological state of labor. (p.200)

In "The Psychological Effects of Cesarean Deliveries", Claudia Panuthos (1983) suggests;

It is useful to change any conscious attitudes that could be redefined to better support childbearing events. Attitude changes through affirmations (positive thoughts) and visualization (guided fantasy) are most effective after emotional upsets have been released and cleared. Once cleared, the mind is ready for a new set of beliefs, more accurately based in the present time. (p.64)

"Rebirthing" (Cohen and Estner, 1984; Richards, 1987) or "recall processing" (Nancy Wainer Cohen as cited by Sweet, 1983), a procedure using breathing to release negative feelings, can be used to help a

woman heal her past cesarean experience (Cohen and Estner, p. 71). In conjunction with imagery, Lynn Baptisti Richards describes rebirthing in the VBAC context as;

a visualization process by which the mother visualizes the past birth experiences, changing it as she would have liked it to have progressed. This experience can be very healing, permitting the woman to move from the previous birth memories into the forcoming birth with more freedom and openness. (p.194)

Rebirthing is recalled by a woman in Silent Knife;

Changing my thoughts about my previous birthings opened a path for Benjamin's natural delivery. The cesarean birth of my twin boys had left me feeling depressed about my failure to push them out of me and I suffered deeply because of the violation to my body through surgery...I forgave myself for creating the cesarean births to protect my babies from the birth traumas I had experienced, and I thanked myself for loving my babies so much that I underwent surgery so that their births would be gentle. (Heather in Cohen and Estner, 1984, p.377)

And in The Vaginal Birth After Cesarean Experience;

Through visualization we healed April's feelings by changing her response to her doctor's demands during her first two pregnancies. Through role playing we prepared her for her confrontation with the doctor over the issue of stripping the membranes. These exercises empowered her to stand up for what she needed and totake responsibility for her birth. (Richards, 1987, p.96)

- Cohen and Estner describe a healing visualization through which women imagine they are painting their cesarean birth on a canvas. They blow out all their anger, bitterness, frustration and sadness on the painting to make it dry. They take time to appreciate the loving decisions they have made. Then they roll up the painting and store it somewhere in their house. When they need to learn from it, they can take it out. Cohen and Estner (1984) feel that to have a VBAC, a woman must move on;

But when you are having your next baby, leave it [the painting] in its special place, for if you bring any leftover paint from your last birth, any feelings of anger, sadness, or inadequacy, these tensions may stiffen the bristles of your brush...or on the next birth, create a whole new painting with whatever colors and textures you need... Every design deserves a fresh canvas and a new brush...and every painting is a work of art. (p.72)

Another visualization suggested by Cohen and Estner (1984) to aid in healing is the "gift" imagery. A mother who has been separated from her baby can imagine that she has given her child a special gift - something that symbolizes all the love she has for the baby. The baby "reaches out, takes the gift and

cuddles it close to his heart" (p.73). The baby feels totally loved, protected, secure and content as he is taken to the nursery.

These images, suggests Carl Jones (1987), "can help free one of the negative emotion and bring about true healing" (p. 44). Jones also suggests forgiving and releasing those involved with the cesarean birth. He suggests picturing the person in your minds eye and saying "I fully and freely forgive and release you. I am free and you are free" (p.44) Lastly, Jones writes, "forgive yourself".

The final healing for some, of course, is the VBAC itself. Some women report not knowing the extent of the hurt caused by the cesarean until a VBAC while others find that they simply had not resolved their cesarean experience until they experienced their VBAC.

Although there are no studies to substantiate the psychological aspects of VBAC, it is clear, when reading the lay literature on VBACs, that there are at least some who prepare psychologically to birth vaginally. Since this literature is in the form of self-proclamation (a chapter in *Silent Knife* called 'Voices of VBAC' which has contributions from 81 women, and an entire book of VBAC stories called 'The VBAC Experience' which relates 24 VBAC stories), we don't know how much was asked by the authors regarding psychological preparation or the psychological skills used in labor, how much was disclosed naturally by cesarean mothers, and how much was eventually edited. Thus, we don't have an accurate account of the quantity or quality of visualization of these cesarean mothers. These stories do give us a 'feel' for what VBAC women may do in preparation for birth and during the vaginal birth itself. For example, at times there is mention in these stories of the mental preparation needed for the VBAC experience;

I felt very well prepared - (and never worried re: my uterus erupting) (Bonnie in Cohen and Estner, 1984, p.359)

...the difference with this birth is that for some reason (good physical shape, good diet, knowledge, mental preparation, no intervention), the labor did make progress. (Janet, ibid, p.362)

I felt: I had very good emotional and physical preparation. (Louise, ibid, p.357)

My object was to convince myself that my body could do it. For my own peace of mind, I had to make sure nothing in my surrounding environment during pregnancy and delivery could interfere with that goal...I spent countless energy and hours on all this...With all this preparation, I delightfully accomplished birthing Este Rachel Emanah. (Laurie, ibid, p.373)

We moved to the delivery room as pushing started. I had not been ready for the bad memories the delivery room evoked. But I felt prepared enough to say to myself - "O.K. there's nothing you can do but get on with the task at hand". (Deborah, ibid, p.366)

Some stories mention the specific use of imagery;

Read, exercise, relax, visualize, think positive, push away negative thoughts. (Marianne, ibid, p.352)

...I pushed for 45 minutes and that's it. That seemed so short to me...we used affirmations...Visualization was very effective, too. It was a terrific experience. (Nan, ibid, p.363)

From the very beginning of my pregnancy, I did a lot of visualizations. I planned how I wanted my labor and birth to be...I came to feel after all my preparation, that if it wasn't going to be a successful VBAC, then it was just meant for me to go through another cesarean. (Gina in Richards, 1987, p.77)

Gina was a perfect example of aiding herself through visualization and talking to her baby. Phrases like, "I am opening for you, baby...come on baby". (Francoise, ibid, p.77)

These stories told in "Silent Knife" and in "The Vaginal Birth After Cesarean Experience" reveal that imagery is used and is helpful in at least some VBACs.

In conclusion, the lay literature clearly recommends imagery for pregnancy and labor, particularly VBAC, where imagery can be used (1) to heal the past cesarean experience, (2) to prepare for a VBAC in helping a woman to compete with any negative images she may still hold and 3) to aid in her belief of her body's ability to birth vaginally. In labor, these sources suggest the use of imagery to help a woman to her body's own timing and wisdom. Visualization, however, is not mentioned or recommended as an important part of suggested part of VBAC training in articles on suggested VBAC courses, such as Austin (1986) or Shearer (1982), nor is imagery cited in the steps outlined in preparation for VBAC by Marianne Brorup of B.C. in "A Good Birth, A Safe Birth" (Korte and Scaer, 1984 p.184). Visualization is taught by at least one Ontario VBAC course, Childbirth Education Association of Ottawa (personal communication - June, 1988), and it is one of the suggestions of Carl Jones in his Appendix: "Using

Mental Imagery for Special Situations". In his section on vaginal birth after a previous cesarean, Jones suggests that a woman take the following steps in order to increase her chances of birthing normally:

- choose a caregiver who recognizes that your condition is normal
 - choose a birthing place with all the essential qualities (listed in chapter 7 of his book)
 - avoid all unnecessary medical intervention
 - pay special attention to labor support. Your partner's help is especially important in keeping you feeling positive - particularly if you are laboring in the hospital.
 - use imagery that makes you feel confident and strong and inspires trust in the body and the normal process of labor.
 - use affirmations with relaxation and imagery to remind yourself that you are able to birth naturally.
- (p. 169)

There is a great need to investigate how effective and important imagery is to VBAC women, particularly to women whose primary cesarean was indicated by dystocia. Since dystocia is so prevalent as an indication for primary cesarean and "failed" VBAC, and the origins of a "slow" or "stopped" labor are not understood the medical establishment is now interested in research in this area. The National Consensus Conference on Aspects of Cesarean Birth Report (1986) reports that much research is needed on dystocia (research issues discussed on p. 66 of this proposal).

While psychological interventions in dystocia were overlooked by this consensus report, evidence suggests that imagery may be an alternative way of dealing with dystocia (either in a primary cesarean or "recurring" in a VBAC). In fact, there is evidence to suggest that imagery, to some extent, is already being used by such women. It is now important to detail the quality, quantity, content and the effect of imagery being used by women whose previous cesarean was done for dystocia, both in preparation their vaginal birth and during their VBAC.

To explore the nature of imagery in VBAC for women whose previous cesarean was indicated by dystocia, questions which address the following issues will be formulated:

- was imagery experienced to aid in healing (physically or emotionally) after the cesarean?
- did women experience "spontaneous" imagery of vaginal and/or cesarean birth?
- did women pre-plan imagery of a vaginal and/or cesarean birth?
- how much imagery (x a week), if any, was experienced in preparation for the VBAC?
- was any specific imagery, other than birth imagery, used to help women feel more confident that their body could birth vaginally?
- was any imagery experienced during VBAC labor and delivery?
- was any specific imagery experienced to augment the VBAC labor and delivery?
- what was the quality of the vaginal or cesarean imagery?
- if imagery was experienced, how did it make VBAC mothers feel?
- how would VBAC mothers rate the effect of the above imagery on their actual VBAC experience.

CHAPTER 4

Method

Overview

This study is exploratory in nature. It will attempt to explore and describe how imagery has been experienced by VBAC mothers whose previous cesarean was performed for dystocia. Specifically, it will explore healing imagery, imagery used in preparation for a VBAC and imagery used during the VBAC itself. Extensive questionnaires will be sent to subjects throughout Ontario who meet various criteria.

Selection of Subjects

Subjects will be attained by one of two routes.

The director of the VBAC Association of Ontario will be sent a package of cover letters, questionnaires and self-addressed envelopes and stamps. She will send these to each member of the Association herself, so as to assure herself that her membership will retain their anonymity.

Second, doctors, midwives and childbirth educators in Ottawa and the surrounding area will be contacted, through a letter outlining the purpose of the study, and asked for the names of VBAC mothers they know. Cover letters, questionnaires and self addressed envelopes will be sent to these mothers by the researcher. If these contact people are uncomfortable with this method of subject contact, they will be given the research packages and stamps to mail to their clients directly.

Names and addresses will not be attached to the questionnaire itself to protect the anonymity of the volunteer, nor will the questionnaire be coded in any way to identify the volunteer.

Questionnaires will be selected from this pool for analysis on the basis of the following criteria:

- 1) the woman has had one or more cesareans for dystocia; CPD or "failure to progress" (response to question 3 of the questionnaire). She will answer regarding her first (or only) cesarean.
- 2) subsequently, she has had one or more VBACs, defined only as a vaginal birth after a cesarean. She will answer regarding the first (or only) VBAC.

Instrument Development

There is very little research on imagery in pregnancy and labor. No known study has been larger than $n=1$, and none have developed or utilized a questionnaire. An exhaustive review of the literature on the VBAC experience, time spent with the Ottawa Cesarean Support Group, and intensive discussions and written communication with the director of the VBAC Association of Ontario has given the researcher and in-depth understanding of VBAC, apart from that which can be gained by personal experience of a VBAC. The "VBAC Mothers Questionnaire" (Appendix A) was developed based on the information gained from the above sources. The format and question type was based on a questionnaire developed by Partington and Orlick (1986) which explores the imagery used by elite athletes.

The VBAC Imagery Questionnaire attempts to explore the role of imagery in the VBAC experience. The first section (questions 1-26) consists of questions which explore a woman's cesarean and VBAC, the answers to which will better define the features of this volunteer population. For example, the number of children born by cesarean and born vaginally, place of birth, number of interventions used in delivery etc. The second section (questions 27-36) explores the role of imagery in healing the cesarean experience, in preparing a woman for a VBAC and in aiding her during her VBAC labor and delivery. Women will be asked about the pre-planned and spontaneous imagery that they experienced in the time between their cesarean and their VBAC, and also if they had experienced similar imagery in the time leading up to and including their cesarean. Specifically, questions will explore healing imagery, preparation imagery (imagery of a vaginal birth, imagery of a repeat cesarean, "augmenting" imagery, imagery to surpass "blocks" from the cesarean) and imagery used during their VBAC labor. They will rate how effective they think each type of imagery was. Other measures, such as length of VBAC labor and degree of satisfaction with the VBAC birth etc., will also be used to rate the role of imagery after a negative experience. A pilot study, to test the relevance and comprehension of the questionnaire, was conducted with the director of the VBAC Association of Ontario and the coordinator of the Ottawa Cesarean Support Group, both of whom had had cesareans for dystocia. This procedure also helped refine questions and clarify terms.

Collection of the Data

The data will be gathered by the VBAC Mothers Questionnaire, sent to volunteers as described in the Selection of Subjects section. A written reminder will be sent to the subjects 4 weeks after the questionnaire.

When the questionnaires have been received, the researcher will ensure that only subjects meeting the criteria described in the Selection of Subjects section will be selected for analysis. These questionnaires will then be coded for entry into the computer.

Analysis of the Data

The data will be analysed using frequency, comparison, and correlation programs. The open ended questions will be analysed qualitatively. Descriptions of these analyses to be done on each question is outlined in Appendix B.

Recommendations to Sport Psychology

Based on the findings of this study, recommendations will be made regarding practical uses of imagery after a negative performance. In particular, reference will be made to the imagery that may help athletes heal from negative or traumatic events, the imagery they might use in preparing to perform after a negative performance, and possible images that may be helpful during subsequent athletic performances.

References

- Anderson, G.M. and Lomas, J. (1984). Determinants of the increasing cesarean birth rate. The New England Journal of Medicine, 311, 14, 887-892.
- Austin, Sue Ellen Jennings. (1986). Childbirth classes for couples desiring VBAC, Maternal Care Nursing (MCN), 11, 250-255.
- Baldwin, R. (1977). Special Delivery. Millbrae, California: Les Femmes.
- Bates, B. & Turner, A.N. (1985). Imagery and symbolism in the birth practices of traditional cultures. Birth, 12, 29-35.
- Benedetti, T.J., Platt, L. & Druzin, M. (1982). Vaginal delivery after previous cesarean section for a nonrecurrent cause. American Journal of Obstetrics and Gynecology, 142 (3), 358-9.
- Burns, J.K. (1976). Relation between blood level of cortisol and duration of human labour. Journal of Physiology, 254, 12p.
- Brozan, N. (1988, Nov. 13). Women Gain as Technology Becomes Part of Natural Birth. The New York Times, p.34.
- Case, B.D., Corcoran, R., Jeffcoate, N., & Randle, G.H. (1971). The Journal of Obstetrics and Gynecology of the British Commonwealth, 78, 203-214.
- Clark, S.L., Eglinton, G.S., Beall, M., & Phelan, J.P. (1984). Effect of indication for previous cesarean section on subsequent delivery outcome in patients undergoing a trial of labor. The Journal of Reproductive Medicine, 29, 22-25.
- Cohen, Nancy Wainer & Estner, Lois J. (1984). Silent Knife. South Hadley: Bergin & Garvey Publishers, Inc.
- Cox, Bonnie E. & Smith, Elaine C. (1982). A mother's self-esteem after a cesarean delivery. Maternal Care Nursing (MCN), 7, 309-314.
- Davids, A. & DeVault, S. (1962). Maternal anxiety during pregnancy and childbirth abnormalities. Psychosomatic Medicine, 24 (5), 464-470.
- Eglinton, G.S., Phelan, J.P., Yeh, S., Diaz, F.P., Wallace, T.M. & Paul, R.H. (1984). Outcome of a trial of labor after prior cesarean delivery. The Journal of Reproductive Medicine, 29 (1), 3-8.
- Epstein, M.L. (1980). The relationship of mental imagery and mental rehearsal to performance on a motor task. Journal of Sport Psychology, 2, 211-220.
- Ferreira, A.J. (1965). Emotional factors in prenatal environment. The Journal of Nervous and Mental Disease, 141, 108-117.
- Feltz, D.L. & Landers, D.M. (1983). The effects of mental practice on motor skill learning and performance: a meta-analysis. Journal of Sport Psychology, 5, 25-57.

- Gawain, S. (1978). Creative Visualization. New York: Bantam Books.
- Gellman, E., Goldstein, M.S., Kaplan, S. & Shapiro, W.J. (1983). Vaginal delivery after cesarean section. Journal of the American Medical Association, 249, 2935-2937.
- Guidelines on Reproductive Care: When the Pregnant Women Does Not Accept Your Professional Advice. (1987). Ontario Medical Association Committee on Reproductive Care.
- Hale, B.D. (1982). The effects of internal and external imagery on muscular and ocular concomitants. Journal of Sport Psychology, 4, 379-387.
- Hausknecht, R. & Heilman, J. Rattner. (1978) Having a Cesarean Baby. New York: E.P. Dutton, Inc.
- Horan, John J. (1973). "In vivo" emotive imagery: a technique for reducing childbirth anxiety and discomfort. Psychological Reports, 32, 1328.
- Hutchinson, Marcia Germaine. (1985). Transforming Body Image. U.S.A.: Library of Congress.
- Ieleva, L. (in press). The psychological factors related to recovery in knee and ankle injuries. University of Ottawa, Masters Thesis.
- Jones, Carl. (1987). Mind Over Labor. Harrisonburg: R.R. Donnely and Sons Co.
- Korte, D. & Scaer, R. (1984). A Good Birth, A Safe Birth. Toronto: Bantam Books.
- Laufer, A., Hodenius, V., Friedman, L., Duncan, N., Guy, C.M., MacPherson, S. & Barrows, N. (1987) Vaginal birth after cesarean section. Journal of Nurse - Midwifery, 32, 41-47.
- Lavin, J.P., Stephens, R.J., Miodovnik, M., & Barden, T.P. (1982). Vaginal delivery in patients with a prior cesarean section. Obstetrics and Gynecology, 59 (2), 135-148.
- Lawler, P.E., Bulfin, M.J., Lawler, M.D. & Lawler, P.E. Jr. (1956). A review of vaginal delivery following cesarean section, from private practice. Obstetrics and Gynecology, 52, 50-52.
- Leary, W.E. Birth Experts Caution on Repeated Cesareans. Nov. 27, 1988.
- Lederman, R.P., Lederman, E., Work, B.A. & McCann, D.S. The relationship of maternal anxiety, plasma catecholamines, and plasma cortisol to progress in labor. American Journal of Obstetrics and Gynecology, 132 (5), 495-500.
- Lipson, J.G. & Tilden, V. Peterson. (1980). Psychological integration of the cesarean birth experience. American Journal of Orthopsychiatry, 50 (4), 598-609.
- Mahoney, M.J. & Avenier, M. (1977). Psychology of the elite athlete. Cognitive Therapy and Research, 1, 135-141.
- Martin, J.N., Morrison, J.C. & Wiser, W.L. Vaginal birth after cesarean section: The demise of routine abdominal delivery. Obstetrics and Gynecology Clinics of North America, 15, 4, 719-736.
- Marut, J.S. & Mercer, R.T. (1979). Comparison of primiparas' perceptions of vaginal and cesarean births. Nursing Research, 28 (5), 260-266.

- Meyers, A.W., Schleser, R., Cooke, C., & Culliver, C. (1979). Cognitive contributions to the development of gymnastics skills. Cognitive Therapy and Research, 3, 75-85.
- Miner, L.S. (in press). Choice of birth method after cesarean section. (Department of Nursing, University of Florida).
- McClain, Carol Sheperd. (1985). Why women choose trial of labor or repeat cesarean section. Journal of Family Practice, 21 (3), 210-216.
- McDonald, R.L. (1965). Personality characteristics in patients with three obstetric complications. Psychosomatic Medicine, 27 (4), 383-390.
- Meier, P.R. & Porreco, R.P. (1982). Trial of labor following cesarean section : A two year experience. American Journal of Obstetrics and Gynecology, 144, 671-678.
- Mercer, R.T. & Marut, J.S. (1981). Comparative viewpoints: Cesarean vs. vaginal childbirth. In D.D. Affonso (Ed.), Impact of Cesarean Childbirth. Philadelphia: F.A. Davis Company.
- Mumford, B. & Hall, C. (1985). The effects of internal and external imagery on performing figures in figure skating. Canadian Journal of Applied Sport Science, 10, 4, 171-177.
- National Consensus Conference on Aspects of Cesarean Birth. (1986). MacMaster University, Guelph, Ontario.
- Nideffer, R.M. (1985). Athletes' Guide to Mental Training. Illinois: Human Kinetics Publishers, Inc.
- Noble, E. (1983). Childbirth with Insight. Boston: Houghton Mifflin Company.
- Notzon, F.C., Placek, P.J. and Taffel, S.M. (1987). Comparisons of national cesarean-section rates. New England Journal of Medicine, 316, 7, 386-389.
- O'Driscoll, K. & Foley, M. (1983). Correlation of decrease in parinatal mortality and increase in cesarean section rates. Obstetrics and Gynecology, 61, 1.
- Orlick, T. (1986). Psyching for Sport: Mental Training for Athletes. Illinois: Leisure Press.
- Orlick, T. and Partington, J. (1988). Mental links to excellence. The Sport Psychologist, 2, 105-130.
- Panuthos, C. (1983). The psychological effects of cesarean deliveries. Mothering, Winter, 61-65.
- Panuthos, C. & Janney, P. (1983). Positive birthing. Mothering, Fall, 52-57.
- Partington, J. & Orlick, T. (1986). Documenting athlete readiness for the 1984 Olympics and evaluating sport consulting. Ottawa: Coaching Association of Canada.
- Pauerstein, Carl J. (1981). Labor after cesarean section. Journal of Reproductive Medicine, 26 (8), 409-412.
- Paul, R.H., Phelan, J.P. & Yeh, S. (1985). Trial of labor in the patient with a prior cesarean birth. American Journal of Obstetrics and Gynecology, 151 (3), 297-304.
- Peterson, Gayle (1984). Birthing Normally. Berkeley: Mindbody Press.

- Peterson, Gayle & Mehl, Lewis. (1984). Pregnancy as Healing. Berkeley: Mindbody Press.
- Petitti, D.B., Cefalo, R.C., Shapiro, S. & Whalley, P. (1982). In hospital maternal mortality in the United States: Time trends and relation to method of delivery. Obstetrics and Gynecology, 59, 6.
- Pitman, Teresa. (1988). A different focus : Mental imagery in labour. New Beginnings, 17, 20-23.
- Placek, P.J. & Taffel, S.M. (1988). Vaginal birth after cesarean (VBAC) in the 1980's. American Journal Of Public Health, 78 (5), 512-515.
- Placek, P.J., Taffel, S., & Moien, M. (1983). Cesarean section delivery rates: United States, 1981. American Journal of Public Health, 77, 955-958.
- Porreco, R.P. (1985). High cesarean section rate : a new perspective. Obstetrics and Gynecology, 65, 307-311.
- Porreco, R.P. & Meier, P.R. (1983) Trial of labor in patients with multiple previous cesarean sections. The Journal of Reproductive Medicine, 28 (11), 770-772.
- Porreco, R.P. & Meier, P.R. (1984). Repeat cesareans - mostly unnecessary. Contemporary Obstetrics and Gynecology, Sept., 55-63.
- Richards, Lynn Baptisti. (1987). The Vaginal Birth After Cesarean Experience. South Hadley: Bergin and Garvey Publishers, Inc.
- Richardson, A. (1967). Mental practice: a review and discussion (Part 1). The Research Quarterly, 38, 95-107.
- Riva, H.L. & Teich, J.C. (1961) Vaginal delivery after cesarean section. American Journal of Obstetrics and Gynecology, 81 (3), 501-510.
- Schlater, S. & Pernoll, M.L. (1987). Dystocia. In M.L. Pernoll & R.C. Benson (Eds.) Current Obstetric and Gynecologic Diagnosis and Treatment (pp. 441-455). Connecticut: Prentice-Hall.
- Shearer, Elizabeth Conner. (1981). Education for vaginal birth after cesarean. Birth, 9, 31-34, Spring.
- Saldana, L.R., Schulman, H., Reuss, L. (1979). Management of pregnancy after cesarean section. American Journal of Obstetrics and Gynecology, 135, 555-561.
- Seitchik, J. & Rao, V.R.R. (1982). Cesarean delivery in nulliparous women for failed oxytocin-augmented labor: Route of delivery in subsequent delivery. American Journal of Obstetrics and Gynecology, 143 (4), 393-397.
- Shiono, P.H., Fielden, J.G., Mcnellis, D., Rhoads, G.G., & Pearse, W.H. (1987). Recent trends in cesarean birth and trial of labor rates in the united states. Journal of the American Medical Association (JAMA), 257 (4), 494-497.
- Silver, R.K. & Minogue, J. (1987). When does a statistical fact become a ethical imperative? American Journal of Obstetrics and Gynecology, 157 (2), 229-233.

- Simonton, O.C., Matthews-Simonton, S., & Creighton, J.L. (1978). Getting well again. Toronto: Bantam Books.
- Statistics Canada. (1987). Unpublished raw data.
- Suinn, R.M. (1972). Behavior rehearsal training for ski racers. Behavior Therapy, 3, 519-520.
- Sweet, Gail Grenier. (1983). Vaginal birth after cesarean: Interview with Nancy Wainer Cohen. Mothering, Winter, 66-72.
- Taffel, S.M., Placek, P.J., Liss, T.L. (1987). Trends in the United States cesarean section rate and reasons for the 1980-85 rise. American Journal of Public Health, 77, 955-958.
- Unestahl, L. E. (1982). Inner mental training for sport. In T. Orlick, J. Partington, & s. Samela (Eds.) Mental training for coaches and athletes: proceedings of the ISSP 5th World Sport Psychology Congress. Ottawa, Ont.: Coaching Association Of Canada, 1982, 135-140.
- Ungerleider, S. (1985). Training for the Olympic games with mind and body: Two cases. Perceptual and Motor Skills, 61, 1291-1294.
- Vealey, R. (1986). Imagery training for performance enhancement. In J.M. Williams (Ed.). Applied Sport Psychology. California: Mayfield Publishing Company.
- VBAC Association of Ontario Statistics. (1988). Unpublished raw data.
- Wertz, R.W. & Wertz, D.C. (1977). Living In: A History of Childbirth in America. New York: Schocker
- Willmoth, L. Ragon. (1975). Prepared childbirth and the concept of control. Journal of Gynecological Nursing, Sept./Oct., 38-41.
- Wolf, B.A. (1986). Women's experience of visualization during pregnancy. Dissertation Abstracts, 912-B, DA8713034.

APPENDIX A

VBAC Mothers Questionnaire

The following section (questions 1-26) asks about various details surrounding your (first) cesarean and your (first) VBAC.

1. Please list ages of your children (in years and months ie. 4 years, 3 months), state their weight at birth and indicate whether they were born vaginally or by cesarean:

Child1: Age	Birth Weight	Circle one: vaginal cesarean
Child2: Age	Birth Weight	Circle one: vaginal cesarean
Child 3: Age	Birth Weight	Circle one: vaginal cesarean
Child 4: Age	Birth Weight	Circle one: vaginal cesarean

2. Your Age:

3. What medical reason were you given (by doctor, medical staff) for your cesarean?

4. What do you believe was the reason for your cesarean section? **Circle one:**

same as listed above (in question 3)

different than listed above (in question 3). Please state what you felt to be the reason for your cesarean.

5. Indicate what kind of cesarean incision (abdominal and uterine) were you given.

Abdominal- circle one: classical or low transverse

Uterine - circle one: classical or low transverse

6. Circle the additional interventions used during your cesarean labor and birth.

enema

shave

pitocin drip

stripping or rupturing of membranes

I.V.

external fetal monitor

internal fetal monitor

epidural anesthesia

spinal anesthesia

other intervention (please specify):

7. During the labor prior to your cesarean, at what point (in terms of centimeters of dilation and hours of labor) did your labor seem to slow or stop?

cms dilation. hours.

8. During your cesarean labor and birth, who was with you? Please check as many as apply:

	during labor	at the birth
--	-----------------	-----------------

doctor		
midwife		
nurse		
baby's father		
family (specify)		
friends		
other (specify)		

9. How could you have been better prepared for the cesarean experience?

10. How would you rate the labor prior to your cesarean?

1	2	3	4	5
horrible				wonderful

11. How would you rate your cesarean birth experience?

1	2	3	4	5
horrible				wonderful

12. After your cesarean experience, what or who was most helpful to your physical and/or emotional recovery from your cesarean (ie. specific readings, support group, individuals)?

13.a) Prior to your VBAC, did you consciously decide to have a VBAC, or was the VBAC unplanned?

Circle one: VBAC planned VBAC unplanned

b) If you consciously decided to have a VBAC, what were your reasons?

14.a) Did you make a decision to change health care professionals in attendance for your VBAC? Circle one: Yes No

If you answered 'yes' to a), please answer b) and c)

b) What changes did you make?

Circle one: from obstetrician to a different obstetrician
from obstetrician to a general practitioner
from general practitioner to another g.p.
from g.p. to an obstetrician
other (specify)

Circle one or both:
added a midwife
added a labor coach
other (specify)

c) What effect did these changes have on your VBAC birth?

-3	-2	-1	0	1	2	3
negative			no			positive
effect			effect			effect

16. During your VBAC labor and birth, who was with you?

Please check as many as apply:

	during labor	at the birth
doctor		
midwife		
nurse		
baby's father		
family (specify)		
friends		
other (specify)		

17.a) Did you make any "place" changes for your VBAC birth?

Circle one: Yes No

If you answered 'yes' to a), please answer b) and c).

b) What change did you make?

Circle one: from hospital to a different hospital

from hospital to a birthing centre
 from hospital to a homebirth
 from birthing centre to a homebirth
 from homebirth to a birthing centre
 from homebirth to a hospital
 other (specify)

c)What effect did these changes have on your VBAC birth?

-3	-2	-1	0	1	2	3
negative			no			positive
effect			effect			effect

18.a)Did you attend childbirth education classes prior to your cesarean delivery? **Circle one:** Yes No

If you answered 'yes' to a), please answer b) and c).

b)What association/hospital ran the class?

c)Did they discuss the use of imagery in pregnancy and labor? **Circle one:** Yes No

19.a)Did you attend childbirth education classes prior to your VBAC delivery? **Circle one:** Yes No

If you answered 'yes' to a), please answer b) and c).

b)what association/hospital ran the class?

c)did they discuss the use of imagery in pregnancy and labor?
Circle one: Yes No

20.How long was your VBAC labor? hours

21.Circle the additional interventions used during your VBAC labor

enema
 shave
 pitocin drip
 stripping or rupturing of membranes
 I.V.
 external fetal monitor
 internal fetal monitor
 epidural anesthesia
 spinal anesthesia
 other intervention (please specify):

22.When, in your pregnancy or labor, did you sense that you would have a VBAC?

23.How would you rate your VBAC experience?

1	2	3	4	5
horrible				wonderful

24.How confident are you that your next birth (if there were one) would be vaginal?

1	2	3	4	5
not confident				very confident

25.What would you do differently in terms of preparation?

26.What would you do differently during labor?

The next section (questions 27-36) of this questionnaire asks about the visualization or imagery you may have experienced during the pregnancy prior to your VBAC and/or during your VBAC labor and delivery.

During pregnancy some women daydream about labor. All of a sudden, without trying, they see a "flash" of themselves in labor or giving birth. We call this experience "spontaneous" imagery.

Some women consciously try to see themselves birthing. They may even plan this in-the-head practice of visualizing their up-coming birth. We call this "pre-planned" imagery.

27.After a cesarean, some women experience imagery of themselves healing, either physically and/or emotionally. Sometimes this imagery is pre-planned by the women and sometimes it occurs spontaneously.

a)After your cesarean, did you ever visualize anything connected to your physical or emotional healing?

Circle one: Yes No

If you answered 'yes' to a), please answer b) and c).

b)What specific imagery did you experience? Please describe in as much detail as you can. (use extra paper if necessary)

c)how would you rate the effect of this imagery on your VBAC birth?

-3	-2	-1	0	1	2	3
negative			no			positive
effect			effect			effect

28.During their pregnancy, some women experience imagery of themselves in labor and birthing.

a)Did you ever visualize birthing vaginally during the pregnancy prior to your VBAC birth?

Circle one: Yes No

b)Did you ever visualize birthing vaginally during the pregnancy prior to your cesarean birth?

Circle one: Yes No

If you answered yes to a), please answer c), d), and e) regarding your VBAC experience.

c)During the pregnancy prior to your VBAC, how many times a week did you spontaneously visualize a vaginal birth and how many times a week did you visualize a vaginal birth through pre-planned imagery? Also how long would each type of image last?

spontaneous- a week; minutes each time

pre-planned- a week; minutes each time

d)During an image of birthing vaginally what would you see and/or feel? Please explain in as much detail as you can.

e)Please try and rate the effect of your imagery of a vaginal birth your actual VBAC birth experience.

-3	-2	-1	0	1	2	3
negative			no			positive
effect			effect			effect

The same questions will now be asked regarding imagery experienced of birthing by repeat cesarean during the pregnancy prior to your VBAC.

29.a)Did you ever visualize birthing by repeat cesarean during your pregnancy?

Circle one: Yes No

b)Did you ever visualize birthing by cesarean during the pregnancy prior to your cesarean?
Circle one: Yes No

If you answer yes to a), please answer c), d), and e) regarding your VBAC experience.

c)During the pregnancy prior to your VBAC, how many times a week did you spontaneously visualize a birth by repeat cesarean and how many times did you visualize a birth by repeat cesarean through pre-planned imagery?

spontaneous- a week; minutes each time

pre-planned- a week; minutes each time

d)During an image of birthing by repeat cesarean, what would you see and/or feel? Please explain in as much detail as you can, and describe as many images as you can remember.

e)Please try and rate the effect of your imagery of a repeat cesarean birth on your actual VBAC birth experience.

-3	-2	-1	0	1	2	3
negative			no			positive
effect			effect			effect

30.a)Apart from birthing imagery, did you experience any other imagery during the pregnancy prior to your VBAC to help you prepare for your VBAC birth?

Circle one: Yes No

b)did you visualize anything similar during the pregnancy prior to your cesarean?

Circle one: Yes No

If you answered yes to a), please answer c), and d) regarding your VBAC experience.

c)Please describe the visualization your referred to in a). Use as much detail as you can and describe as many images as you remember.

d)How would you rate the effect of this imagery (as described in c) on your VBAC birth?

-3	-2	-1	0	1	2	3
negative			no			positive
effect			effect			effect

31.Some women experience imagery while actually birthing. Sometimes this imagery is pre-planned and sometimes it occurs spontaneously.

a)Did you visualize during your actual VBAC labor and birth? Circle one: Yes No

b)Did you visualize during the labor prior to your cesarean? Circle one: Yes No

If you answered yes to a), please answer c) and d) regarding your VBAC experience.

c)What did you see and/or feel in the imagery you experienced during your VBAC labor and birth? Please explain in as much detail as you can and describe as many images as you remember.

d)How would you rate the effect of this birthing imagery on your actual VBAC labor and birth?

-3	-2	-1	0	1	2	3
negative			no			positive
effect			effect			effect

32.Some women experience imagery of their labor and birth progressing consistently and at a good speed. Sometimes they plan to visualize this "labor augmenting" imagery and sometimes it occurs spontaneously.

a)Did you ever experience any "augmenting" imagery during the pregnancy prior to your VBAC and/or during the VBAC labor and birth? Circle one: Yes No

b)Did you visualize "augmenting" imagery during the pregnancy and/or labor prior to your cesarean?

Circle one: Yes No

If you answered yes to a), please answer c)and d) regarding your VBAC experience.

c)What did you see and/or feel during this augmenting imagery you refer to in a)? Please explain in as much detail as you can.

d)How would you rate the effect of this augmenting imagery on your VBAC birth?

-3	-2	-1	0	1	2	3
negative			no			positive
effect			effect			effect

33. Some women experience imagery in their actual VBAC labor at the point at which a cesarean was "indicated" in the labor prior to the actual cesarean. That is, if they got to 4 cm. in the labor prior to the cesarean, they may experience imagery during the VBAC labor when they get to 4 cm. Sometimes this imagery is planned and sometimes it occurs spontaneously.

a) Did you visualize anything specific at that point in your VBAC labor?

Circle one: Yes No

If you answered 'yes' to a), please answer b) and c).

b) What did you see and/or feel? Please explain in as much detail as you can.

c) How would you rate the effect of this imagery on your birth?

-3	-2	-1	0	1	2	3
negative			no			positive
effect			effect			effect

34. If you ever visualized birthing vaginally, either prior to and/or during your VBAC labor and birth (ie. if you answered "yes" to question 28.a and/or 31.a), please answer the following questions.

a) Did you have an inside view - seeing what you would see when you are actually birthing vaginally?

1	2	3	4	5
no inside				inside view, like
view				being there

b) Did you have an outside view - as if you were watching yourself birth vaginally on video?

1	2	3	4	5
no outside				video image
view				

c) Did you feel the actions and sensations as if you were actually birthing vaginally?

1	2	3	4	5
no outside view				video image

d) At its clearest, how would you describe the detail of your vaginal birth imagery?

1	2	3	4	5
little detail				very detailed

e) In your mental imagery how difficult was it to direct or control the picture or feeling of a vaginal birth?

1	2	3	4	5
impossible to make it happen				very easy to direct/control

f) How would you describe the images when you visualized birthing vaginally?

1	2	3	4	5
mostly positive				mostly negative

g) After visualizing a vaginal birth, how did you usually feel?

35. If you visualized birthing by repeat cesarean prior to and/ or during your VBAC labor and birth (ie. if you answered "yes" to question 29.a and/or 31.b), please answer the following questions.

a) Did you have an inside view - seeing what you would see when you are actually birthing by repeat cesarean?

1	2	3	4	5
no inside view				inside view, like being there

b) Did you have an outside view - as if you were watching yourself birth by repeat cesarean on video?

1	2	3	4	5
no outside view				video image

c)Did you feel the actions and sensations as if you were actually birthing by repeat cesarean?

1	2	3	4	5
no feelings				vivid feelings

d)At its clearest, how would you describe the detail of your repeat cesarean birth imagery?

1	2	3	4	5
little detail				very detailed

e)In your mental imagery how difficult was it to direct or control the picture or feeling of a repeat cesarean birth?

1	2	3	4	5
impossible to make it happen				very easy to direct/control

f)How would you describe the images when you visualized birthing by repeat cesarean?

1	2	3	4	5
mostly postive				mostly negative

g)After visualizing a repeat cesarean birth, how did you usually feel?

36.If you experienced any of the previously mentioned types of imagery, please answer the following question:

Did you hear about imagery from any specific reading or any particular person? Circle one: Yes No
If yes, please specify.

Thank-you for your time and participation!

APPENDIX B

Frequency Analysis

Details Section (Q1-26)

- F.D.1. average # of c/sec children (Q1)
2. average # of vag. children (Q1)
3. average age of mother (Q2)
4. average # of women with low transverse uterine, abdominal inc. (Q5)
5. average # of women with classical uterine, abdominal inc. (Q5)
6. average # of interventions in c/sec labor (Q6)
7. average dilation in c/sec (Q7)
8. average # of hours in c/sec labor (Q7)
9. people at c/sec labor (ie % women had baby's father) (Q8)
10. people at c/sec birth (Q8)
11. average rating of c/sec labor experience (Q10)
12. average rating of c/sec birth (Q11)
13. # of VBAC planned/ unplanned (13a)
14. # of women who changed health care professionals (Q14a)
15. # of women who went from obst. to g.p (Q14b)
16. # of women who went from obst. to obst. (Q14b)
17. # of women who added a miswife (Q14b)
18. # of women who added a labor coach (Q14b)
19. average # of interventions in VBAC labor (Q21)
20. # of women who made place changes (Q17a)
21. # of women who switched from hosp to home (Q17b)
22. # of women who switched from hosp. to birth. centre (Q17b)
23. # of women who switched from hosp. to hosp. (Q17b)

24. # of women who attend classes prior to c/sec (Q18a)
25. # in hosp. vs. assoc. classes (Q18b)
26. # of women whose class discussed imagery (Q18c)
27. # of women who attend classes prior to VBAC (Q19a)
28. # in hosp. vs. assoc. classes (Q19b)
29. # of women whose class discussed imagery (Q19c)
30. average # of hours in VBAC labor (Q20)
31. average rating of VBAC experience (Q23)
32. average confidence for future VBAC births (Q24)
33. women who went from obst. to g.p. (Q14b div) - what effect did change have? (Q14c)
34. women who had midwife (Q14b div) - what effect did change have (Q14c)
35. women who added labor coach (Q14b div) -what effect did change have (Q14c)
36. women who change from obst. to obst. (Q14b div)-what effect did change have (Q14c)
37. women who went from obst. to g.p.-what effect did change have (Q14c)
38. obst. to g.p. (Q14b div)-on rating of experience (Q23)
39. + midwife (Q14b div)-on rating of experience (Q23)
40. + labor coach (Q14b div)-on rating of experience Q23)
41. hosp. to homebirth (Q17b div)- effects of change (Q17c)
42. hosp.to birth. centre (Q17b div)-effects of change (Q17c)
43. hosp. to hosp. (Q17b div)-effects of change (Q17c)
44. hosp. to home (Q17b div)- rating of VBAC experience (Q23)
45. hosp. to birth. centre (Q17b div) -rating of VBAC experience (Q23)
46. hosp. to hosp. (Q17b div)-rating of VBAC experience (Q23)

Imagery Section (Q27-36)

- F.I.1. average # of women using healing imagery (Q27a)
2. rating of healing imagery effects (Q27c)

3. average # of women who image vaginal birth imagery prior VBAC (Q28a)
4. average # of women who image vag. birth imag. prior c/sec (Q28b)
5. average # spon. vag. imag. per week (Q28c)
6. average # pre-planned vag. imag. per week (Q28c)
7. rating of vag. birth imagery effects (Q28e)
8. average # of women who image rc/sec prior VBAC (Q29a)
9. average # of women who image rc/sec prior c/sec (Q29b)
10. average # spon. rc/sec images per week (Q29c)
11. average # pre-planned rc/sec images per week (Q29c)
12. rating of rc/sec image effects (Q29e)
13. average # of women using "other" imag. - prior VBAC (Q30a)
14. " - prior c/sec (Q30b)
15. rating of "other" imagery effects (Q30d)
16. average # of women imaging during VBAC (Q31a)
17. average # of women labor of c/sec. (Q31b)
18. rating of effect of imag. during labor (Q31d)
19. av. # women using "labor augmenting" imag.- prior VBAC (Q32a)
20. " - prior c/sec (Q32b)
21. rating of effects of "lab. aug." imag. (Q32d)
22. av. # women using "block imag." (Q33a)
23. rating of "block" imag (Q33c)
24. av.rating of inside view -vag. (Q34a)
25. av. rating of outside view -vag. (Q34b)
26. av. rating of sensation imag.-vag. (Q34c)
27. av. rating of detail of imag.-vag. (Q34d)
28. av. rating control-vag. (Q34e)

29. av. positive/negative (Q34f)
30. av. inside view-rc/sec (Q35a)
32. av. outside view-rc/sec. (Q35b)
33. av. sensation imag.-rc/sec. (Q35c)
34. av. detail-rc/sec. (Q35d)
35. av. control-rc/sec. (Q35e)
36. av. pos/neg-rc/sec. (Q35f)

Comparison Analysis

Details Section (Q1-26)

- C.I.1. compare birth wts. of VBAC babies against c/sec babies (Q1)
2. compare # of interventions in c/sec. labor (Q6) vs. # in VBAC labor (Q21)
3. compare # of int. in c/sec labor (Q6 div) and rating of c/sec labor exp. (Q10)
4. compare # of int. in c/sec labor (Q6 div) and rating of c/sec birth exp. (Q11)
5. compare av. dilation (Q7 div) against c/sec labor exp. (Q10)
6. " " " ' birth ' (Q11)
7. compare av. hours of labor (Q7 div) against c/sec. labor exp. (Q10)
8. ' "' " " birth exp. (Q11)
9. compare who was at c/sec labor (Q8 div) against c/sec labor exp. (Q10)
10. ' ' 'c/sec birth exp. (Q11)
11. compare having changed obst. to g.p., obst. to obst., adding midwife, adding labor coach (Q14b div - D.F.33-36) - on effect of changes (Q14c)
12. compare ' ' ' ' (D.F.37-40)- on rating of VBAC exp. (Q23)
13. compare women who made people changes and those who didn't (Q14a div) on ratings of experience (Q23)
14. compare baby's father at c/sec birth (Q8 div) with rating of c/sec birth exp. (Q11)
15. compare women who made place changes and who didn't (Q17a div) on effects (Q17c)

16. compare change hosp. to home, hosp. to b.c, hosp to hosp (Q17b div- D.F.41-43) on effects of changes (Q17c)
17. compare change hosp to home, hosp to b.c., hosp to hosp (Q17b div- D.F. 44-46) on VBAC experience (Q23)
18. compare women who go to classes and don't (Q18a div) and rating of c/sec exp. (Q11)
19. compare women who goto hospital classes vs. assoc. classes (Q18b div) and rating of c/sec exp. (Q11)
20. compare women who discussed imag. in class prior c/sec and didn't (Q18c div) and if they used birth imag. in c/sec (Q28e)
21. compare women who discussed imagery in class and didn't prior c/sec (Q18c div) and if they used c/sec birth imagery in c/sec (Q29e)
22. compare women who go to classes and don't (Q19a) and rating of VBAC experience (Q23)
23. compare women who go to hosp classes vs. assoc classes (Q19b) and rating of VBAC experience (Q23)
24. compare women who didscussed imagery in class and didn't (Q19c div) and if they used vag. imag. in VBAC (Q28a)
25. compare women who discussed imag. in classes and didn't (Q19c div) and if they used birth imag. in VBAC (Q29a)
26. compare # of int. in VBAC labor (Q21) and rating of VBAC experience (Q23)
27. compare women who made a change in people (Q14a div) and confidence for next birth (Q24)
28. compare women who did vag. birth imag. (Q28a) and confidence for next birth (Q24)
29. compare women who did rc/sec birth imag (Q29a) and confidence for next birth (Q24)
30. compare baby's fathers presence (Q16 div) and exp. of VBAC (Q23)

Imagery Section (Q27-36)

- C.I.1. compare women who did healing imag. against those who didn't (Q27a div) on VBAC rating (Q23)

2. compare amount of vag. imag. done before c/sec (Q28b) against amt. done prior VBAC (Q28a)
3. compare women who did vag.birth imag. against those who didn't (Q28a div) on VBAC rating (Q23)
4. compare women who did vag.birth. imag. (Q28b div) against those who didn't on rating of c/sec labor (Q10)
5. ' ' ' c/sec birth (Q11)
6. compare amt. of rc/sec imag. done before c/sec (Q29b) against amt. done prior VBAC (Q29a)
7. compare women who did rc/sec birth imag. against those who didn't (Q29b div) on VBAC rating (Q23)
8. compare women who did rc/sec birth imag. (Q29b div) against those who didn't on rating of c/sec labor (Q10)
9. compare women who did rc/sec birth omag. (Q29b div) against those who didn't on rating of c/sec birth (Q11)
10. compare amount of spon. vag. imag. (Q28c) vs. spont. rc/sec imag. (Q29c)
11. compare amount of pre-planned vag.imag (Q28c) vs. pre-planned rc/sec imag (Q28c)
12. compare amt. of "other imag" done before c/sec (Q30b) against done prior VBAC (Q30a)
13. compare women who dod "other imag" against those who didn't (30a div) on VBAC rating (Q23)
14. compare women who did rc/sec birth imag (Q30b div) against those who didn't on rating of c/sec labor (Q10)
15. compare women who did rc/sec birth imag. (Q30b div) against those who didn't on rating of c/sec birth (Q11)
16. compare amt. of imag. during VBAC birth (Q30a) vs. amt. of imag. during c/sec labor (Q30b)
17. compare women who imaged during birth against those who didn't (Q31a div) on VBAC rating (Q23)
18. compare women who did imag. during c/sec labor (Q31b div) against rating of c/sec labor (Q10)
19. compare amt. of "aug" imag. done prior c/sec (Q32b) vs. prior VBAC (Q32a)
20. compare women who did "aug" imag. against those who didn't (32a div) on VBAC rating (Q23)
21. compare women who did "aug" imag. against those who didn't (Q32b div) on c/sec labor rating (Q10)
22. compare women who did "aug" imag. against those who didn't (32b div) on c/sec birth rating (Q11)

23. compare #'s of women doing each kind of imagery (ie. which kind is used most?) (averages 27a, 28a, 29a, 30a, 31a, 32a, 33a)
24. compare the effects ratings of all diff. imag. (ie. which had the most effect?) (averages 27c, 28e, 29e, 30d, 31d, 32d, 33c)
25. Quality imagery - vag. vs. c/sec. Compare 34a vs. 35a; 34b vs. 35b; 34c vs. 35c; 34d vs. 35d; 34e vs. 35e; 34f vs. 35f.
26. Compare the effects of everything; people change (14b), place of birth (17b), and all the different imagery (27c, 28e, 29e, 30d, 31d, 32d, 33c).

Correlation Analysis

Details Section (Q1-26)

- Corr.D.1. correlate the average rating of VBAC experience (Q23) vs. average confidence for future births (Q24)
2. correlate average rating of c/sec labor experience (Q10) and average rating of c/sec birth experience (Q11)
3. correlate average rating of c/sec nirth experience (Q10) and average rating of VBAC birth experience (Q23)

Imagery Section (Q27-36)

Corr.I.1. (step wise regression)

Quality on VBAC experience

Q34a Q23

b '

c '

d '

e '

f '

35a ' ,

b ' ,

c ' ,

d ' ,

e ' ,

f ' ,

Open Question Analysis

Details Section (Q1-26)

O.D.1. Reasons why women thought their c/sec was done (Q3)

2. how the c/sec experience could have been better (Q9)

3. what was most helpful in c/sec recovery (Q12)

4. reasons to have VBAC (Q13b)

5. when did women sense a VBAC was imminent (Q22)

Imagery Section (Q27-36)

O.I.1. details of healing imagery (Q27b)

2. details of vag. birth imagery (Q28d)

3. details of rc/sec birth imagery (Q29d)

4. details of "other" imagery (Q30c)

5. details of imag used during VBAC labor/birth (Q31c)

6. details of "labor aug." imagery (Q32c)

7. details of "block" imag (Q33b)

8. feelings after vag. imag. (Q34g)

9. feelings after c/sec imag. (Q35g)

APPENDIX C

Amendments to Thesis Proposal Subsequent to Committee Meeting

The present study is an exploration in the psychology of human activity. While there are many studies documenting the imagery used in preparation for various physical activities, there are no known studies which consider the role of imagery after a negative event. The purpose of the present study is to explore imagery strategies used to successfully overcome a negative physical and emotional experience.

The subject population for this study must, then, fulfill the following criteria. The individuals:

1. must have a common negative perception of a similar intense physical and emotional experience.
2. must follow this experience by setting a common physical and emotional goal.
3. must achieve that goal ie: they perceive "success" in a subsequent physical/ emotional goal.

A group that fulfills these criteria is VBAC mothers (women who have had a cesarean followed by a vaginal birth) in that:

1. they have a common negative perception of a similar intense physical and emotional experience, the cesarean birth. The cesarean has both a strong physical and emotional component and, by the nature of birthing, is an intense, salient experience. VBAC women commonly view their cesarean as negative and often perceive that they have "failed".
2. following their cesarean experience, these women set a VBAC, a vaginal birth as a goal. A vaginal birth is an emotional and physically demanding event.
3. they have achieved a common goal (a vaginal birth) and thereby overcame the previous negative event (the cesarean birth).

In addition, this subject population offers the following:

4. there is only one "failure" (cesarean birth) and one "success" (vaginal birth). Thus the effect of imagery is easier to measure.
5. the healing and psychological preparation for VBAC will likely be at a conscious level. Because it is difficult to obtain a VBAC in our medical community, decisions and psychological preparation will often be conscious and remembered.
6. the literature suggests that pregnancy and birthing is a period of great potential for imagery, possibly due to the predominant activation of the right brain. The birthing environment is likely a fertile ground for the study of imagery.
7. VBAC mothers are accessible and more likely to tell their story.

VBAC mothers are thus an excellent population through which to study imagery strategies used to overcome a negative physical and emotional event. The specific purpose of this study is to explore the use of imagery in the VBAC experience to determine the quantity and quality of the imagery used, to discover if imagery is useful in healing past negative birth experiences, and to determine its usefulness in preparation for the VBAC and the role of imagery in the VBAC experience.