

1995

Perceptions of control and satisfaction with hospital birth experiences for first-time mothers

Clelia Tedeschi
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PERCEPTIONS OF CONTROL AND SATISFACTION
WITH HOSPITAL BIRTH EXPERIENCES
FOR FIRST-TIME MOTHERS

Clelia Tedeschi

1995

USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

PERCEPTIONS OF CONTROL AND SATISFACTION
WITH HOSPITAL BIRTH EXPERIENCES FOR
FIRST-TIME MOTHERS

BY

CLELIA TEDESCHI

A Thesis Submitted in Partial Fulfilment of the
Requirements for the Award of

Bachelor of Arts (Psychology) - Honours
at the Faculty of Health and Human Sciences

Edith Cowan University

Date of Submission: 31st October, 1995

Abstract

Satisfaction with childbirth is associated with women's future emotional wellbeing. This study examined whether first - time mother's antenatal expectations, postnatal evaluations of control during labour and delivery, and the discrepancy between expectations and evaluations were significant predictors of women's satisfaction with their childbirth experiences. The effect of medical interventions (e.g., obstetrical interventions and pain relief medication) on women's perceptions of control and satisfaction was also examined. The purposive sample of eighty first-time mothers, mean age 26 years (excluding women who had caesareans) delivered at the public hospital where they attended antenatal classes. During their fourth antenatal class women completed a questionnaire, which included a 12 item scale, devised for the study. The Antenatal Expectation Scale (AES) asked women about their expectations regarding labour and delivery in four main areas: partner support, medical support, use of interventions, and personal control. These sub-scales headings were derived from the Childbirth Expectation Scale, (CEQ) a 36 item Likert Scale developed by Beaton, Bramadat, Gupton and Sloan (1991).

Eighty women were re-contacted 4-6 weeks after childbirth and completed a post-natal questionnaire, presented as a phone interview. This questionnaire included a 12 item

Postnatal Evaluation Scale (PES), which matched the items presented in the AES, a 25 item affective measure of control during labour and delivery, the Labour Agency Scale, (LAS) devised by Hodnett and Simmons-Tropea (1991) and a six item Satisfaction Scale that reflected the four subscales of the CEQ. A sub-set ($N=22$) of the sample also completed the CEQ in the postpartum to enable a comparison with the PES. The study replicated Bramadat and Driedger's (1993) results. Expectations, and the discrepancy between expectations and perception of childbirth did not significantly predict women's satisfaction with childbirth. The LAS was the strongest predictor of satisfaction, accounting for 63% of the variance, comparable to 59% of the variance in satisfaction reported by Bramadat and Driedger (1993). Furthermore, a significant difference was found for medical interventions on women's satisfaction $t(78) = 2.78, p < .001$ with women ($N=40$) in a high intervention group being less satisfied ($M=33.25, SD= 5.43$) than women ($N=40$) in a low intervention group ($M=36.72, SD=5.76$).

Declaration

I certify that this thesis does not incorporate, without acknowledgment, any material previously submitted for a degree or diploma in any institution of higher education and that, to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text.

ACKNOWLEDGMENTS

To my supervisor Liz Pike, thankyou for all the support and guidance provided along the way.

To Dr Adelma Hills and the staff of the Psychology Department, Edith Cowan University, thankyou for all the expertise and knowledge you have shared with me over the years of study.

A special thankyou to Geoff Lysle for his constant encouragement and helpful feedback.

Thankyou to Carol Thorogood for helping me to clarify nursing and medical issues, and providing me with some stimulating reading.

A very special thankyou to the Directors of Nursing at Wanneroo Hospital for making this study possible, in particular, Laura Colvin. Thankyou to all the nursing staff in the maternity ward, as well as the midwives and physiotherapists who allowed me to take up time from their classes, and who willingly shared their knowledge.

Thankyou also to my friend Roz Morrow for her constant encouragement and support. An especial thankyou to all the women who participated in this study.

Thankyou also to all my friends who helped in innumerable ways, and also to my son Thomas who was patient, and to Peter, for the valuable time he gave.

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CHAPTER 1

Introduction

The delivery of obstetrical services and maternity care to Australian pregnant and parturient women is under social and political review. Though Australia provides an exceptional standard of obstetrical services (National Health Medical Research Council, 1994), Western Australia has been noted for its high rates of medical intervention in childbirth (Wagner, 1994), particularly caesarean sections which accounted for 18.5% of all births in 1991 ("Birth Intervention," 1994). The World Health Organisation (WHO) recommends that over 80% of women should be able to have uncomplicated births and pregnancies. However, statistics provided by the WA Health Department (1994) indicated that of the 60% of women who spontaneously entered into labour, less than one third (28.7%) birthed their children without having their labours augmented (e.g., ruptured membranes). Hence, the majority of women in Western Australia experience some form of intervention during labour and delivery (Ministerial Report, W.A., 1995). Given that most Australian women deliver their babies within hospital environments (NHMRC, 1994), with 99.5% of West Australian women falling into this latter category (Australian Bureau of Statistics, 1994) it is relevant to evaluate the present options and models of care that are socially and politically acceptable. A Select Western Australian Parliamentary Committee (1995) reporting on childbirth interventions, found that women were concerned about the lack of continuity in the medical care they received.

Twenty-five percent of the 961 women surveyed by the WA Health Department had three or more doctors care for them ("Childbirth Roundabout," 1995).

Consumers of maternity services such as Birthplace Support Group continue to lobby medical and political institutions to provide more choices in childbirth care. Active lobbying facilitates people reclaiming their right to experience childbirth as a natural life event (Griffith, 1992; Lumley & Astbury, 1980) with childbirth acknowledged as an emotionally enriching and socially significant experience (Cunningham, 1993).

However, the use of interventions continues to be promoted by a national health care system which ensures that a medically oriented range of maternity services is financially accessible to all women ("AMA Hits Study," 1994). For example, there is no Medicare rebate provided for women opting for homebirths, or for independent midwifery services in hospitals.

Medical Versus Holistic Perspectives

The debate about what constitutes a fulfilling and safe experience for the mother and child is polarised between two disparate viewpoints. The bio-medical model of healthcare treats childbirth as if it were an illness fraught with risks necessitating the use of medical expertise and technological interventions (Balaskas, 1992; Littlefield & Adams, 1987). This model regards birth as having been normal in retrospect (Oakley, 1983).

Furthermore, the defining of what is considered to be safe practices in childbirth has evolved from new developments in medical research and technologies (Summey

& Hurst 1986 a & b) which have also been criticised (Rothman, 1983, 1989; Wagner, 1994).

A comprehensive review of the scientific literature evaluating the implications of using specific birth technologies in the management and care of pregnant and parturient women (Chalmers, Enkin & Murray, 1989) concluded that women identified as being low risk, that is most likely to have normal active pregnancies, would benefit from the least amount of intervention, whereas women identified as being high risk would benefit from appropriate interventions being used by competent specialists. The medical position adopted by Chalmers et al. is congruent with the holistic model of childbirth, which considers every pregnancy to be normal until it is proven otherwise (Meikle, 1990). Birth is viewed as a normative life process that has healthy outcomes for mother and child (Ministerial Report, W.A., 1995).

Overall Chalmers et al. (1989) differentiated between those interventions that were unnecessary and harmful, those that were moderately useful, and aspects of technological care which had the greatest utility. A significant issue arising from this review was women's expressed need for a continuity of care which included them in decision - making processes.

Similarly, an Australian study (Brown & Lumley, 1994) surveying 790 women found that increased satisfaction with maternity care was associated with the following factors: having access to information, inclusion in decision-making, staff relationships, and degree of medical intervention.

Models of maternity care arise from the implementation of scientific and medical research findings which are / are not acceptable to consumers of childbirth services.

Hence, the ongoing tension between representatives of the disparate viewpoints (i.e., medical versus holistic) has generated an evaluation of maternity services so that a broader range of choices and models of care can evolve. Ultimately, the provision of such care, along with ongoing social and psychological support arises from the development and implementation of appropriate childbirth policies (Chalmers et al., 1989).

The Alternative Birthing Program

During the late 1980's birthing services in Australia came under political review (Ministerial Review of Birthing Services in Victoria, 1989) with consumers of maternity services outlining four main areas of concern: safety, having some control over the birth process, access to and information sharing and receiving continuity of care. Similar issues were expressed in other states including Western Australia where consumers voiced their need for a safe and humane birth experience that could occur within both hospital and alternative systems of care (Ministerial Task Force, W.A., 1990).

Following on from recommendations made by the National Health and Medical Research Council (1987) for the provision of birthing centres and the updating of hospital practices and services, The Alternative Birthing Services Program was established by the Federal Government in 1989-90, providing a four year budget of \$6.5 million dollars for all the States and territories to increase their options of maternity care. In 1992, Western Australia received \$4.1 million dollars which led to the reopening of a family birthing centre attached to King Edward Memorial Hospital. The Alternative Birthing Program extended funding (\$8.9 million) for

another four years to provide alternative models of maternity care ("Half A Million For Birthing," 1994). Subsequently alternative birthing centres were established at the Rockingham-Kwinana Hospital, the Mandurah Hospital, at Swan Districts Hospital, and a community midwife resource and referral centre providing voluntary services was also created. However, other proposals including attaching one other family birth centre to a metropolitan public hospital, and allowing a pilot program for homebirth deliveries to occur with a team of four midwives managing selected low-risk cases failed to eventuate ("Give Women A Choice," 1995).

Childbirth Issues in Western Australia

Though various reports (NHMRC 1994; Ministerial Task Force, 1990) have recommended that health care providers broaden their options of care for all childbearing women, role change (e.g., autonomous independent midwives) has met with resistance from members of the medical profession, and it is not supported by the present health insurance systems.

Presently in Western Australia, midwives cannot admit women to hospitals or birthing centres, they cannot make their own decisions, nor can they carry their own caseloads. Midwives have limited access to hospital services and they must rely upon medical practitioners to request diagnostic tests, or prescribe medication for their clients. The majority of the 3726 midwives registered in Western Australia are salaried employees under medical direction (C. Thorogood, personal communication, July 6, 1995).

Hospital shifts and timetables restrict the provision of continuous care, since childbearing women may encounter any number of midwives from the antenatal stage

through to the postpartum period. One outcome is that women obtain conflicting advice, for example, breastfeeding (Percival, 1991).

Recently, a model of midwife-based continuous care for women from when they first become pregnant through to the early post-delivery period trialled in Australia (Rowley, Hensley, Brinsmead & Wlodarczyk, 1995) yielded the following results. Overall, the midwife based model was more cost effective, produced the same outcomes, and was just as safe as the present hospital-based care. Furthermore, the provision of continuous support from known midwives, was associated with greater satisfaction with the care women received, and the women required less medication during childbirth.

Medicare data indicates that obstetricians provide over 80% of all childbirth services for privately insured women who are more likely to experience obstetrical interventions (e.g., induced labours) than women in public care. This latter group are more likely to have their babies delivered by a combination of midwives, general practitioners and specialists ("Childbirth Roundabout," 1995).

Limiting women's choices to the present medical model has a psychosocial impact. An increase in insurance fees for Western Australian obstetricians in 1993 had ramifications for expectant mothers delivering in public hospitals, who found themselves caught up in an economic rift between general practitioners and obstetricians. On the one hand, disenchanted obstetricians threatened to withdraw their services, whilst general practitioners complained about the inadequate \$600 fee they were being paid to deliver babies. This caused a social outcry as some doctors

charged hospital booking fees or refused to treat women who were public patients (Birthplace, 1993, "Crisis as Doctor Shortage," 1993).

Focus of Present Study

Against this backdrop, the present study addresses women's perception of personal control during labour and delivery as reported by first-time mothers giving birth in a public hospital. Given the preceding discussion on the provision of maternity services in Western Australia, it is important to note that the control dimension will reflect the practices and policies of the hospital environment, and the professional care these women received. Additionally, how women come to evaluate their sense of control is influenced by their expectations about control during childbirth, and these notions are derived from a variety of sources (e.g., books, antenatal classes, media, influential others, and social norms) against which their experiences are compared.

Previous research into childbirth expectations and perceptions of control (Bramadat & Driedger, 1993) tested a discrepancy model based on consumer research into satisfaction. The goal of the present study was to replicate the results obtained by Bramadat and Driedger (1993) and to develop alternative measures of women's control expectancies and evaluations about childbirth.

Control is a complex construct that does not necessarily mean the same thing to all women. Whilst some women may perceive their sense of control as being enhanced by the use of interventions (Davis-Floyd, 1994; Meikle, 1990) other women find this disempowering (Balaskas, 1992). Furthermore, the medical profession has structural control within the hospital environment (Savage, 1992).

Hence, the values, ethical and legal considerations of medical professionals also influences the control dimension of childbirth (ACOG, Technical Bulletin, 1989).

Nonetheless, having a sense of control is an empowering and satisfying outcome for first-time mothers that leaves lasting memories (Simkin, 1991) and affects what they come to expect from subsequent birth experiences.

Significance of the Study

It is important to understand which aspects of care most influence women's sense of control and satisfaction with childbirth. Is receiving information more important than the inter-personal communication style medical professionals use? Do interpretations of person-environment interactions matter the most? Do women's perception of pain and how it is managed undermine their sense of having control? Answers to questions such as these has utility for maternity care professionals who can broaden the range of options and provide a continuity of care that promotes the psychological and physical well-being of all pregnant and parturient women.

Outline of the Study

The following chapter reviews the research literature into women's childbirth experiences that are relative to notions of control and satisfaction. Chapter 3 describes the exploratory study, and outlines the design for the main study. Chapter 4 reports upon the main study and its results, which are then discussed in Chapter 5.

Chapter 2

Literature Review

Becoming a Mother

Motherhood is a celebrated event that changes women's lives. In recent years research has increasingly recognised that emotional disturbances such as anxiety, fear and depression can manifest during pregnancy, and varies across individuals (Kumar & Robson, 1984; Wolkind & Zajoczek, 1981). Given the physical, emotional, and psychosocial changes that occur, pregnancy and childbirth are potential stressors for women (Frommer, 1973 a, b; Unterman, Posner & Williams, 1990). Women are challenged to master physiological and psychological changes that tests their self-concepts and influences their future emotional and physical well-being (Humenick, 1981).

According to Holmes and Rahe (1967) pregnancy and childbirth rates amongst the most 20 stressful life events and the DSM-III-R (cited in White, 1993) rates the birth of a first child as a severe stressor on a par with poverty, employment and divorce. Motherhood precipitates a developmental crisis for women requiring the conceptualisation of a post-partum stage of development from early pregnancy to when a child reaches the pre-school age (White, 1993). In addressing stress research relative to childbirth Lobel and Dunkel-Schetter (1990) surmised that the health effects of stress in pregnant women have been limited to considering either environmental or response approaches, without sharing a unified theoretical base. A

major difficulty with assessing the stressfulness of childbirth is that other life stresses affect the individual, and personality differences also influence how women perceive and prepare for childbirth (Simkin, 1991). Additionally, culturally determined stereotypes of birth colour women's perspective (Rothman, 1983, 1989).

Cultural Stereotypes of Birthing Women

During pregnancy, particularly if it is her first child, a woman is exposed to diverse individual and societal beliefs which influence expectations of delivery. Green, Kitzinger and Coupland (1990) have challenged common stereotypes that abound in labour wards about the parturient woman and her expectations regarding childbirth. Green et al. found the most common stereotype of the natural childbirth woman, was that she is well educated and middle-class. She will have high expectations about birth being a fulfilling experience over which she can exert control. When her unrealistic expectations are not met she will be severely disappointed and become prone to depression. In contrast, the uneducated working class woman does not care whether her birth experience is fulfilling and she relegates all responsibility to the medical staff (Nelson, 1983).

Refuting these stereotypes which can influence what happens to women during childbirth, Green et al. (1990) found that regardless of their educational level, all women expected birth to be a fulfilling experience in which they could actively participate. In general, these researchers reported that more highly educated women were better informed about interventions and the side effects of analgesics, and they were more prepared to use alternative methods of pain relief (e.g., breathing and relaxation) than less educated women.

The preconceptions women have about childbirth are largely transferred through their social learning, (e.g., antenatal classes) accordingly influenced by their culture (Griffith, 1992). Socio-economic status also influences where and how women give birth, since many are unable to afford the services of a private midwife, obstetrician, or other alternatives to public hospital care.

Ultimately, how women and their partners choose their methods of preparation, and their delivery environment is an expression of the beliefs and expectations they hold, and the value they place on the actual birth experience (Cunningham, 1993). In this sense, the frame of reference people utilise about the birth process is embedded in the medical, and psychosocial environment (Fleming, Ruble, Anderson & Flett, 1988).

Physiological Needs

Irrespective of the childbirth environment, all parturient women have a need to trust others who will assist them at birth (Balaskas, 1992). Being uncertain about a potentially stressful experience, a first-time mother endeavours to fulfil her personal need for protection and safety by selecting an environment and people she believes she can trust (Odent, 1984, 1992). In this regard, many first-time mothers unquestionably adopt the medical model. Meikle (1990) believes that many women view medical interventions as being the socially accepted norm, necessary to ensure a safe delivery for both mother and child since "the hospital system is there to make people physically well and so outcomes are generally seen in that light" (p.38).

Naaktgeboren (1989) studied the biological responses of mammals at birth to find that the need for safety acted as a protective response. If disturbed, mammal's uterine

contractions became inhibited, thereby releasing females to seek out safer places.

Stress can influence how a pregnancy progresses, impacting upon foetal growth, causing miscarriages, or pre-term deliveries. The effects of stress are mediated by the output of adrenalins which leads to increased activity. Conversely, the cessation of adrenalins stops activity (i.e., uterine contractions). If a labouring woman is unduly stressed, the suppression of uterine activity acts as a life saving mechanism, since it provides her with the opportunity to fight or flee the situation. Women also seek support from the people who are present to assist them (Naaktgeboren, 1989). At a basic level, the birth experience has two underlying characteristics: the need to feel safe in the chosen birth place, and a need to be assisted in the event. These factors influence how childbirth is perceived and managed.

Subjective Measures

Research into women's childbirth experiences have traditionally been measured under two separate but related areas, 'soft' (i.e., psychosocial) versus 'hard' (i.e., medical) outcomes (Oakley, 1983; Wagner, 1992).

Within the context of adaptation and distress some researchers (Lomas, Dove, Enkin & Mitchell, 1987; Lumley, 1985; Oakley, 1983) believe that satisfaction plays a key part in measuring 'soft' outcomes. 'Soft' outcomes refer to women's emotional and cognitive responses to labour and delivery as an indicator of psychological well-being (Jacoby, 1987). Women's self-reports on subjective states such as satisfaction, or anxiety, are differentiated from 'hard' outcomes, or objective measures of the event such as infant or maternal mortality rates, and physical well-being. Oakley

(1983) broadly defined ... 'soft outcomes as measurements of psychosocial morbidity' (p.33) which covered aspects of a woman's emotional, mental and social adaptation.

Furthermore, qualitative research into longterm memories of childbirth experiences (Simkin, 1991) supported the notion that feelings of being satisfied, or dissatisfied persisted and were qualified by the positive or negative interpersonal relations that had been experienced.

Mastery Model of Childbirth

Humenick (1981) developed an alternative model for childbirth in which mastery or control, rather than the medical management of pain, determined how satisfied a woman felt after her childbirth experience. This model was based on the premise that childbirth education had a favourable influence on how women came to evaluate the event. Those that attended antenatal classes rated their experiences in a more positive light, were less prone to postnatal depression, and were more likely to develop a higher self-esteem (Humenick, 1981). The medical pain management model inadequately described what women perceived as being relevant and personally satisfying in their childbirth experiences. Colman and Colman (cited in Humenick, 1981, p.80) surmised that childbirth was a "psychological task" for women.

Antenatal Education

Since the late 1960's antenatal education has been the primary mode of preparing women for the management of stress and pain during labour and delivery (Wideman & Singer, 1984). Women learn various techniques such as those devised by Dick-Read and Lamaze (cited in Heatherington, 1990). Dick-Read believed that the fear-tension-pain cycle of labour and delivery could be neutralised by teaching women

what to expect, what exercises to do, and how they could counter the pain by relaxation, or breathing techniques.

According to Hetherington (1990) two underlying reasons explained why women attended antenatal classes: the desire for a rewarding or humanistic experience along with the need to be adequately prepared. Other researchers surmised that women who attended antenatal classes required less pain relief medication (Manning & Wright, 1983) and had developed coping skills which increased their expectations to be active decision-makers (Humenick, 1981; Maymon, Shiloh, Maymon, Chen & Bahary, 1992).

Therefore, personal control is related to perceptions that one can have an effect upon external events by participating in decisions, increasing self-control, and being well informed (Maymon et al. 1992). Women's psychological functioning is enhanced by class attendance, particularly if it facilitates finding out what can be expected from the medical staff and hospital practices (Brewin & Bradley, 1982) and class-attenders are more likely to accommodate unexpected occurrences during labour and delivery than women who have not attended (Stolte, 1987).

As illustrated by the previous discussion, the active management of labour and delivery requires that a reciprocal relationship develop between women and their caregivers, and this begins at the antenatal stage. Callister (1993) found that when caregivers shared their medical knowledge with labouring women, less medication was required and women reported having more positive feelings.

Davenport -Slack and Boylan (cited in Humenick, 1981, p.81) defined control as comprising of "self-reliance, self-control and independence" which they found

influenced the degree of satisfaction with childbirth. Hodnett and Simmons-Tropea (1987) reported that pregnant women did expect to have control during their birth experiences, and that self-esteem was enhanced when a woman's expectations were congruent with her experience.

These notions of control suggest that women become empowered when they perceive themselves to be active participants. Overall, research into maternal childbirth expectations (Beaton & Gupton, 1990; Gupton, Beaton, Sloan & Bramadat, 1991) has concluded that women need to develop realistic expectations about the painfulness of labour and delivery since unmet expectations cause a sense of personal loss and grieving. When the birth experience is not congruent with maternal expectations, the experience will be perceived as having been more negative and painful. However, Gupton et al. point out that studies on the impact of childbirth expectancies on the birth experience generally address whether expectations were met or not and so little is known about which expectations most determine satisfaction with childbirth.

According to Lumley and Astbury (1980) childbirth educators need to provide women with accurate information about the painfulness of labour and delivery. Antenatal education which presents a typical or normal model of labour and delivery can be counter-productive in that women may develop fixed ideas of what to expect and when these are not matched by their experiences they may develop feelings of disappointment and failure. Kitzinger (1992) points to the sensitivity of care givers who can respect a woman's need to know about her body and the feelings of control

she has, stating that: "Childbirth can also be an opportunity for women to relate to their bodies in new ways, to experience them as powerful, competent and creative"(p.220). Women who decide they want to be active in the birth process acquire information to help them mentally prepare for the event. First-time mothers who have no prior knowledge against which to compare are more reliant on the information provided by antenatal educators and they are more likely to hold unrealistic expectations about the painfulness of labour and delivery (Stolte, 1987). Antenatal educators can help women develop a realistic understanding of childbirth pain as being a normal physiological response which can be overcome by drawing upon physical and emotional resources (J. Robinson, personal communication, April 25, 1994). However, attending antenatal classes does not guarantee the type of labour and delivery a first-time mother will come to experience, since unknown factors (e.g., duration of labour) also operate. Additionally, Maymon et al. (1992) comment that the expectation women have of being able to co-operate with staff is unlikely to be fully satisfied and Shearer (1990) criticises inflexible labour ward policies and insensitive treatment by hospital staff which can swamp the beneficial effects of antenatal education.

Control and Satisfaction in Childbirth

Exploring affective and cognitive factors, Green, Kitzinger and Coupland (1990) studied 825 women through the later stages of pregnancy and shortly after their deliveries to determine which emotional states related to aspects of the birth experience. Quality of information and care obtained were linked to women's perceptions of control and subsequent emotional well-being. Perceptions of control

were influenced by women's thinking style, the events that occurred and the amount of information received. Beliefs that the right decisions had been made were more important than sharing in active decision-making. Essentially, a self-fulfilling trend was noted; those women expecting childbirth to be aversive found it so. Recent Australian research into factors associated with women's satisfaction with childbirth (Brown & Lumley, 1994) concurs with research findings by Green et al. (1990). Brown and Lumley (1994) reported that receiving information, participation in decision-making, and quality of care were important components of satisfaction, influencing women's emotional wellbeing. Furthermore, the use of interventions were associated with greater dissatisfaction for these Australian women. Brown and Lumley (1994) affirm that not enough is known about the social and psychological consequences of obstetric interventions for women.

In addressing the difficulties of measuring such 'soft outcomes' as satisfaction, Bramadat and Driedger (1993) conducted both a quantitative and a qualitative study in women's birth experiences to better understand what satisfaction measures revealed. Bramadat and Driedger's three-dimensional model linked expectations and perceptions of control to consumer based theories of satisfaction which recognised that satisfaction was multi-faceted, since a person could be satisfied with one aspect of an event, but not another. Hunt (cited in Bramadat & Driedger, 1993) asserted that consumer satisfaction occurred when a person evaluated their emotional response to the situation in a positive way, according to how well the experience matched their initial perceptions.

Subsequently, quantitative unidimensional satisfaction scales, which rely upon fixed responses to questions about environmental or human processes, are inadequate (Shearer, 1987). According to Seguin, Therrien, Champagne and Larouche (1989) women evaluate their personal experiences according to the type of deliveries they have and their prior expectations. These researchers found that women who had vaginal deliveries valued participation in decision - making, whilst women who had caesareans valued obtaining information about their operations; hence both decision-making and receiving information were linked to women's satisfaction with the medical service.

In several studies (Bramadat & Driedger, 1993; Green et al., 1990) women were asked to evaluate which aspects of their labour and delivery experiences were satisfying in the light of prior expectations, and perceptions of person-environment interactions. However, in these studies, no specific psychological paradigm was used to define what control, expectations, and satisfaction meant.

Utilising constructs which have been found to underpin the childbirth literature, the present study also comments upon pertinent principles which are incorporated within social cognitive theory.

Social Cognitive Theory

In social cognitive theory, locus of control is defined according to the reinforcement patterns and subsequent belief systems that accompany human behaviour (Lefcourt, 1982). A person whose efforts to exert control over events is consistently rewarded will come to expect that outcomes are the result of self-effort

and so will expend energy on important tasks, whereas the opposite occurs for individuals whose efforts are consistently unsuccessful.

Studies utilising locus of control constructs report that women's satisfaction with childbirth is associated with their underlying sense of control (Littlefield & Adams, 1987; Willmuth, Weaver & Borenstein, 1978).

In considering how motivational processes influence affective and cognitive responses, White's Effectance Motivation Theory (cited in Skinner, 1993) outlines how all humans have a basic physiological need to be effective in their interactions with the world. This motivational process leads to adaptive learning as people appraise the extent to which their behaviour facilitates or denies their innate psychological need to be effective. Loss of control is a major source of stress experienced when situations are perceived as being unpredictable or inconsistent, or when expectations are unclear (Skinner, 1993). Furthermore, control over aversive situations comes in different guises; where behavioural control exerts an immediate response, cognitive control involves an appraisal process, and decisional control requires that choices be made (Averill, 1973).

According to developmental researchers (Brandstadter, 1993; Heckhausen, 1993) people utilise an accommodative mode of coping whereby cognitive and emotional processes facilitate the achievement of life goals and diminish the impact of aversive experiences. Additionally, normative conceptions about life-span development provide social comparisons that help shape people's thoughts and actions. In essence, control can be experienced as a primary drive that is assimilative (i.e., the direct effect an action has upon a situation) or, as a secondary drive which is accommodative (i.e.,

the cognitive appraisal of an action) so that it fits in with the person's self-precepts (Rothbaum, Weisz & Synder, 1982).

This assimilative-accommodative function is similar to Bandura's (1982) expectancy model of mastery behaviour, explained as self-efficacy expectancies and outcome expectancies. A self-efficacy expectancy is when an individual judges his/her own ability to perform a certain behaviour, whereas an outcome expectancy comprises of an individual's assessment that a certain behaviour will lead to a predictable outcome. When people evaluate that their behaviour will lead to specific outcomes, either positive, or negative, they develop beliefs that they can or cannot successfully execute the required behaviour.

As illustrated by the previous discussion on childbirth, beliefs about personal control are related to feelings of mastery and confidence, and they comprise of two categories: generalised ways of thinking (stable personality dispositions) and as situation specific expectations (relationships). According to Bandura (1982, 1986) experience is reciprocally determined and it is not sufficient to have the skills, we must also believe that we can use them. The amount of effort people expend and for how long is moderated by internalised belief systems about one's abilities. Individuals who are low in self-efficacy, when faced with a stressful event, will give up easily, attribute their failure to internal processes, and experience high levels of anxiety and depression. Furthermore, there are four sources of self-efficacy beliefs: performance attainment's, physiological states, vicarious learning, and verbal persuasion.

Applying self-efficacy theory to study women's tolerance of pain during childbirth, Manning and Wright (1983) found that self-efficacy expectancies more than outcome expectancies were related to notions of mastery when measured as women's persistent efforts to control pain without medication. However, Manning and Wright acknowledged that past performance attainment's are the most dependable sources of self-efficacy judgements, for the link between expectancies and actual performance is weakest under conditions in which situational and task factors are ambiguous. Undoubtedly, this is the case for first-time mothers undertaking a potentially hazardous experience, whose outcomes cannot be predicted.

Similarly, Lazarus and Folkman (1984) define beliefs as being cognitive mind sets, which have been personally formed or are culturally shared. Generalised beliefs about control are relevant to the stress process, since perceptions of control, or, lack of it, mediate the stress experienced. The extent to which individuals confidently believe that they can master their environment, as opposed to perceiving themselves as being vulnerable to external threats, determines whether a stressful event will be viewed as a challenge or as a threat. Bandura (1993) points out that social cognitive theory views stress reactions in terms of perceived self inefficacy to exercise control over aversive threats or taxing environmental demands. The most important stressors humans have to cope with are psychological threats since a belief that we can't control aversive events leads to distress and impairs our ability to function. Stress reactions are governed by our perceptions of coping, dependent upon whether the stress is viewed as a challenge or a threat (Jerusalem & Schwarzer, 1993).

Subsequently cognitive appraisals and emotional responses act as continuous

mediating processes that are reciprocally determined by person-environment interactions (Bandura, 1986; Lewin, 1943).

The attributes of any particular setting influences how a person acts, via their emotional reaction and this affects their psychobiologic functioning (Bandura, 1993). According to Bandura (1982) efficacy in dealing with environmental demands involves a generative capability wherein cognitive, social, and behavioural skills must be organised into integrated courses of action serving innumerable purposes for “a capability is only as good as its execution” (p.122).

Summary

Perceived self-efficacy operates within social-cognitive theory as one of many determinants that regulates human motivation, emotions and behaviour. In the childbirth research reviewed in this chapter notions of control were explained according to how women appraised what they came to experience. A belief that the right decisions had been made was more important to women than actively making their own decisions. Green et al. (1990) suggest that control in this setting denotes an interactive process of sharing information. Similarly, how women psychologically prepare for childbirth engages emotional and cognitive processes that are reflected in the expectancies they develop, and influences how they appraise the event.

Determining how specific expectancy processes operate and what women mean by personal control or satisfaction is limited by cross-sectional research. Individual variations in cognition and affect are best measured by methods used in process research (Lazarus, 1991). Nonetheless, a general understanding of how these processes are linked can be explored.

Study Methodology

In this study women's expectations about labour and delivery were measured at the antenatal stage and then were re-measured as postnatal appraisals of their experiences. Additionally, women's personal sense of control during childbirth was measured. These variables were then related to women's overall satisfaction with the event.

Operational Definitions

Antenatal expectations (12 items) comprised of women's subjective assessments about the type of labour and delivery they expected to have in regard to partner and staff support, self-efficacy in coping with labour, and fulfilment with the experience. Self-efficacy items included: ability to cope with labour, participation in decision-making, and having control over one's breathing, adopted positions, and use of medical interventions. The same expectation items were presented postnatally to assess how the women appraised these same aspects of their labour and delivery experiences.

Perception of control was an affective measure of women's perceived control during labour and delivery (Hodnett & Simmons-Tropea, 1987).

Satisfaction was the primary outcome variable measuring women's overall evaluation of their birth experiences, as well as incorporating the subscales used in the expectation / evaluation scales.

Research Questions

The context of the exploratory study saw labour and delivery as being a naturally occurring stressful event for which women had to psychologically prepare by developing coping strategies. Subsequently, two questions guided the exploratory study, namely: Did birth expectations and perceptions of control significantly account for first-time mother's satisfaction with labour and delivery? Secondly, did medical interventions influence women's sense of control with labour and delivery, and affect their satisfaction? The following Chapter describes the pilot study, leading to the clarification of research questions for the main study which are reported at the end of Chapter 3.

Chapter 3

The Exploratory Study

Background

One of the aims of the exploratory study was to design measures which could incorporate emotional and cognitive expectations and evaluations of women's childbirth experiences. Several key research papers presented notions of control specific to women's childbirth (Green et al., 1990; Humenick & Bugen, 1981; Gupton, et al., 1991) whilst Janis's theory of psychological stress (cited in Levy and McGee, 1975) addressed the anticipated emotional stress of childbirth.

Initial Antenatal Questionnaire Design Based on Relevant Research

The antenatal questionnaire included a demographic section covering age, educational level, and marital status. Four other questions asked women to rate how attending antenatal classes had helped them to prepare for labour and delivery.

A semantic differential technique based on Levy and McGee (1975) measured whether women expected labour and delivery to be a positive or negative experience. Six adjective pairs using a 6 point scale, asked women to report the direction and intensity of their feeling about what they expected labour and delivery would be like. The four adjective pairs were good - bad, happy - unhappy, comfortable - uncomfortable, and pleasant - unpleasant. Two other adjectives were included to assess more contemporary views (active - passive, and easy - hard). The initial focus

of the exploratory study was to assess whether the childbirth experience was a moment of stress impact and how prior expectations might influence the intensity and direction of reported stress. Janis's theory of psychological stress (cited in Levy & McGee, 1975) provided a useful means of specifying the different prestress-impact attitudes that are associated with childbirth outcomes. How individuals psychologically prepare for physically painful events determines their recovery. This rehearsing of future events, termed the "work of worry" (Levy & Gee, p.171) serves to contain anxious feelings and reduce uncertainty at the crisis point. People who deny the danger and fail to prepare, or those who are overly anxious, experience more suffering at the crisis point.

To assess the attitudes that first-time mothers were likely to hold regarding their anticipated experiences a 10 item 'A Prenatal Attitude Towards Participation Scale', (Humenick & Bugen, 1981) was included. The 10 items included appraisals about the father's presence at birth, having decided what is important during childbirth, ability to control own feelings, pain control, coping with the pressure of a normal delivery, and expectation that childbirth would go smoothly.

To compare the researcher's notions of women's attitudes regarding childbirth, an eight item scale was devised reflecting some of the ideas from Humenick and Bugen's scale (1981). Only one item remained the same in both scales, namely, "I have less control over the environment than others." The researcher's scale included expectations women might have in relation to medical procedures being explained, the effects of childbirth upon their self-confidence, their expectation to have some control over what medical staff did to them, their expectation to take part in decision

- making, the importance of active participation, their ability to cope with the pressures of childbirth, and their intention to use medication for pain relief. Humenick and Bugen's (1981) ten item scale and the researcher's eight item scale were administered at the antenatal stage to women participating in the pilot study.

Method

Subjects

Twenty-two first-time mothers, attending antenatal classes at a public, suburban hospital in Perth, Western Australia, where they also delivered their babies, were invited to participate. The sample was reduced to 18 for the analysis as one woman was not a primigravida (i.e., first-time mother), another had to be transferred to a specialist obstetric public hospital, and two women who delivered by caesarean were also excluded. The study focused on first-time mothers whose birth experiences fell within a narrower range of experience associated with spontaneous vaginal birth. The mean age for women in the exploratory study was 28 years. Ten were Australian born, six were British, one a New Zealander, and one a German. The majority had completed Yr 12 of the High School, and one woman held a tertiary degree. Thirteen women were married, four were in de facto relationships, and another was single.

The women attended five antenatal classes with the last one being a hospital tour. The other four classes comprised of shared sessions with a physiotherapist who taught relaxation and breathing techniques and ways of making birth a more comfortable experience, whilst a hospital midwife covered the stages of birth, the

range of medical interventions most frequently used, pain relief medication and hospital practices.

Thirteen of the women attended the hospital clinic, whilst five were private patients, with their own general practitioner or obstetrician. Generally, the public hospital system provided a doctor, specialist obstetrician, and midwives. A variety of support people were present at the births (e.g., partners, friends and other family).

Procedure

Permission was obtained from the hospital to conduct the study and the first questionnaire was completed by the women prior to their fourth antenatal class. The instructions printed on the front page of the questionnaire were verbally delivered by the researcher, who also requested the women's voluntary participation in the postnatal follow up to be conducted as a telephone interview four weeks after their delivery. Permission was given by the hospital for the researcher to access the women's birth records and all those who were eligible to be contacted for the postnatal interview were re-contacted by the researcher.

The two expectation scales used in the antenatal questionnaire used a 7 point Likert Scale (1= strongly agree and 7 = strongly disagree) and all positively worded items were reverse coded so that the higher number reflected positive responses. The initial Antenatal Questionnaire and coding instructions for all the questionnaires used in the exploratory and main study are presented in Appendix A. There was no missing data and assumptions regarding normality for the antenatal and postnatal scales were checked by examining scatterplots. Though statistical significance level of test results

are reported (i.e., correlations) it is acknowledged that the sample size ($N=18$) is too small to warrant anything more than the noting of trends. The data was entered into the SPSS for Windows statistical program, and any discrepancies were corrected prior to analysis.

Results and Discussion

Use of Interventions

Table 1 reports the total number of interventions women had ($N=18$) including use of pain relief medication, epidurals, and obstetrical procedures.

Twenty-eight percent ($n=5$) of the women had 2 interventions, 22% ($n=4$) had 3 interventions, 28% ($n=5$) had 4, and 11% ($n=2$) each had 5 and 6 interventions respectively. As the results in Table 1 show, pethidine was the most commonly used pain medication, followed by gas and morphine, with the majority of women ($n=10$) having had more than one type of drug.

Results for Scales Used in the Antenatal Questionnaire

The six adjective pairs reflected positive and negative trends. The internal consistency of this scale was checked using Cronbach's Coefficient and the six items were found to be reliable, having an alpha coefficient of .80.

Women had moderate positive expectations that labour and delivery would be active ($M=2.5$), good ($M=3.0$), and happy ($M=2.4$). There was a strong negative trend for expectations about the painfulness of labour and delivery

Table 1

Medical Interventions to Assist Labour and Delivery

Intervention	<u>n</u>	% had this
Medication		
Epidural	3	16.7%
Morphine	5	27.8%
Pethidine (once)	12	66.7%
Pethidine (twice)	2	11%
Nitrate Oxide (gas)	9	50%
Medical Procedures		
Augmentation of labour Rupturing membranes (ARM)	3	17%
IV synct drip	3	17%
Induction of labour (ARM)	3	17%
Prostaglandin	3	17%
Iv synct. drip	3	17%
Episiotomy	14	78%
Forceps delivery	1	6%
Ventose (vacuum)	4	22%
Total <u>N</u> = 18		

(\bar{M} = 4.8), its discomfort (\bar{M} = 4.4), and the degree of difficulty (\bar{M} = 3.7). Pearson product-moment correlations between the six adjective pairs revealed a strong correlation between difficulty of labour and its painfulness (r = .73), and also that it would be uncomfortable and painful (r = .80). In reworking the antenatal questionnaire for the main study these six adjective pairs were replaced with two questions about the fulfilment and disappointment of labour and delivery, included in the researcher's final 10 item expectation scale. Additionally, an open ended question in the postnatal questionnaire asked women whether they failed to meet their expectations, and they were also asked to rate the pain of childbirth as being better, worse, or no different than expected.

Four questions asking women to evaluate their antenatal class revealed a moderate positive appraisal overall (\bar{M} = 11.5). Antenatal classes helped them to prepare for the labour and delivery they would like to have (\bar{M} = 3.3), learn about hospital procedures (\bar{M} = 2.5), communicate with staff (\bar{M} = 2.7) and to a lesser extent, decide which medical procedures they would choose (\bar{M} = 2.5). This scale was found to have internal consistency using Cronbach's Coefficient, with an alpha coefficient of .77.

Comparison of Expectation Scales Used in the Initial Antenatal Study

The 10 item Prenatal Attitude Towards Childbirth Participation Scale by Humenick and Bugen (1981) was compared with the 8 item scale devised by the researcher. Table 2 reports the alpha's, means, standard deviations and correlations between scales. The researcher's Antenatal Expectation Scale (AES) had a similar

Table 2

Differences Between Scales Used in Antenatal Pilot Study

Scale	<u>M</u>	<u>SD</u>	Alpha	Standard item alpha	Correlation
<u>N</u> = 18					
Humenick and Bugen (10 items)	50.	6.6	.64		.70
Researcher's Scale (AES, 8 items)	43.	5.2	.60	.69	.56

reliability (.60) to the Humenick and Bugen (1981) scale (.64) in the exploratory study but both were lower than the .84 alpha reported by Humenick and Bugen in their study of 37 first-time mothers. Though the two scales were moderately correlated, $r(18) = .56$, $p < .01$ they did not compare favourably with Humenick and Bugen's (1981) study results, since lower alpha reliability results had been obtained. This lead to the researcher questioning if the scales specifically measured women's expectations. An assessment was made using Pearson product-moment correlations of individual items within the researcher's own expectation scale. The following two items were moderately correlated ($r = .65$): "I expect to have some control of what doctors and midwives do to me during my labour," and "I want to take part in decisions related to the care I receive during childbirth." Both of these statements were retained in the reworked AES used for the main study with the former item

being reworded to state: "I don't expect to have control over what doctors and midwives do to me during labour and delivery. The women from this antenatal group commented on the ambiguity of other items included in the Humenick and Bugen scale, namely "I have less control over the environment than others and "People can control their feelings." These items were excluded from the researcher's final 12 item scale because the wording was not specific to women's expectations about their birth experiences.

Research Conducted by Bramadat and Colleagues

Further interest in expectations led to correspondence with a Canadian Nursing researcher Dr I Bramadat who gave permission for the 36 item Childbirth Expectation Questionnaire (CEQ) to be used (Dr Bramadat, personal correspondence, September, 1993). According to Gupton et al. (1991) control was a key variable associated with satisfaction. Women's expectations about, and perceptions of, control during childbirth provided a research base to measuring these variables at both the antenatal and postnatal stages. However, Bramadat and Driedger (1993) found that a control dimension did not emerge as a reliable separate subscale in the present version of the CEQ and so they also used Hodnett and Simmons -Tropea (1991) Labour Agency Scale (LAS) as a measure of women's perceptions of control during labour and delivery.

In their study of first-time mothers ($N = 85$), Bramadat and Driedger (1993) used a repeated measures design. The questionnaires included: the Childbirth Expectation Questionnaire (CEQ), the LAS, and Satisfaction Scales which were administered at

three times, during the third trimester of pregnancy, at 24- 48 hours after delivery, and at four to six weeks postpartum. This study tested a discrepancy model (i.e., discrepancy between expectations & perceptions) as predictors of Satisfaction. Bramadat and Driedger found a strong correlation between perception of childbirth and discrepancy scores $r(91) = .67$, $p < 0.0001$, indicating that the variables were likely to be redundant and this was confirmed with stepwise multiple regression. The discrepancy between expectations and perceptions of childbirth (CEQ) were not found to be the best predictors of satisfaction with the childbirth experience. Instead, the perception of the birth experience, particularly perception of control as measured by the LAS, was the strongest predictor of maternal satisfaction.

Childbirth Expectation Scale

The CEQ provided a global score for women's expectations regarding the birth experience, and it also divided into four subscales relative to: coping with pain, alpha coefficient (.84), partner's support (.72), nursing support (.80), and interventions (.65). The CEQ (Gupton et al., 1991) was too lengthy to use so the researcher's original expectation scale was reframed to incorporate the subscale headings of the CEQ into a final 12 items, including two of the items from the initial antenatal questionnaire. Separate versions of this expectation scale were prepared, with only tenses changed to match the antenatal or postnatal time-frame.

The following were included: staff and partner support, interventions used, birth as a fulfilling experience, self-control, perception of control, and decision-making.

Labour Agency Scale

The LAS (29 items) measured perception of control during labour and delivery. The LAS was developed from a 70 item Labour scale, devised by Oliver, 1972 (cited in Hodnett & Simmons-Tropea, 1991) which studied the relationships between expectancies and experiences of control and Lamaze birth training. The content validity of the 29 LAS items has been tested via item and factor analyses and dual scaling techniques (Hodnett & Simmons-Tropea). Using Spearman Brown Prophecy formula the alpha reliability coefficients for the LAS ranged between 0.94 to 0.95. A Factor Analysis of the LAS suggested a single factor accounted for 73.7% of the total variance. Variables with the highest loadings expressed notions of control and mastery (e.g., "I had a sense of not being in control, I felt competent, I felt incapable, and I felt good about my behaviour during labour", (Hodnett & Simmons-Tropea, p.307). In addition, the stability of the postnatal form of the LAS was tested and found to be a reliable measure whether administered after two weeks, one month, or a 3 month period. The LAS instrument had been tested on homogenous samples ($N = 680$) of middle class Canadian women with uncomplicated pregnancies and who attended antenatal classes.

The present study excluded four of the 29 items of the LAS on the basis of reported factor loadings (Hodnett & Tropea, 1987, p.308) which were equivalent to or less than .50. Hodnett and Tropea suggest that eliminating weaker items from the LAS is unlikely to strongly affect the overall alpha coefficient. Items number 9, 12, 18, and 24 of the LAS form E were not included, reducing the LAS to 25 items.

Since the postnatal questionnaire was to be completed via telephone, the researcher's aim was to succinctly cover a broad range of experience. The excluded items were expressed by other retained items (e.g., q.2 "I experienced complete awareness of everything that was happening", was excluded as q. 1. "Everything made sense", presented a similar perception). The items were scored on a 7 point Likert Scale with 1 anchored in Almost always and 7 in Rarely. All positively worded items were reverse scored, so that the higher score reflected the most positive feeling, and all the items were summed.

Satisfaction Scale

The six item Satisfaction Scale devised by Bramadat and Driedger to match the CEQ, included an overall measure, plus items reflecting the subscales of the CEQ. The items measured affective responses relative to satisfaction with partner, with midwives, self-coping and control, use of interventions, and overall satisfaction childbirth experience.

Development of Final Antenatal and Postnatal Questionnaires

The study design was quasi-experimental, incorporating a pre-post measure developed by the researcher to assess women's expectations about, and subsequent appraisals of control during labour and delivery. The final antenatal questionnaire contained demographic details, the researcher's 12 items Antenatal Expectation Scale (AES) and four questions evaluating antenatal classes. The postnatal questionnaire had Satisfaction as the outcome variable, with the predictor variables including the researcher's 12 item Postnatal Evaluation Scale (PES) and the LAS reflecting

personal control. Open-ended questions were included and women were also asked to rate the painfulness of their childbirth experience.

The new questionnaires used in the main study are included in Appendix B, and letters of permission to use The LAS, Childbirth Attitude Questionnaire, CEQ, and Satisfaction Scale are included in Appendix C.

Results and Discussion for the Postnatal Questionnaire

Table 3 reports the postnatal scale results for the exploratory study. The mean for the LAS (adjusted mean =147.70, SD=24.28) was slightly higher than a similar study

Table 3

Means, Standard Deviations and Alpha's for the Postnatal Questionnaire

Scale	<u>M</u>	<u>SD</u>	Alpha	Stand. item alpha
Postnatal Evaluations (Researcher's 12 items)	62.66	11.29	.81	.82
LAS (25 items)	147.70	24.28	.91	.92
Satisfaction (6 items)	33.94	5.63	.73	.74

(Humenick & Bugen, 1981, p305) for 44 hospital primigravidas (M = 143.0, SD = 22.0). The reported mean (147.3) for the LAS was adjusted by dividing the obtained mean (127.33) with the number of items used (25) multiplied by the total number of items in the full scale (29). The Alpha coefficient for the LAS is slightly lower than

the range 0.94 - 0.95 reported by Humenick et al. (1981). The Alpha coefficients for the other scales suggest that they have adequate internal consistency. Pearson product-moment correlations computed between the scales show that the LAS was strongly correlated with both the Researcher's Postnatal Evaluation Scale $r(18) = .71, p < .001$ and with the Total Satisfaction Scale $r(18) = .73, p < .001$.

Qualitative Data

Since only two questions from the researcher's Antenatal Expectation Scale used in the exploratory study could be matched with the postnatal version of the same scale, the researcher's AES could not be fully compared with its postnatal version (PES). However, two statements from this expectation scale were further qualified postnatally with open-ended questions which asked the women to describe what made them lose control during labour and delivery, and also what helped them to get into comfortable positions. Additionally, women were asked to describe their expectations in retrospect, relative to their sense of having met them. Fourteen women (78%) said that they had not failed to meet their expectations. However, there was an emphasis on the painfulness of childbirth, as seven of this group described the pain as being worse than they expected, whilst three reported it as being congruent with their expectation. Some of the comments made by the women who said that they had not failed to meet their expectations included: having a normal birth experience, support, not having interventions, deciding not to have pain relief, or regrets about having had pethidine. Only one woman stated that she was in control

and was flexible about using pain medication. In contrast, comments made by women who felt that they had failed to meet their expectations included: labour being slowed down by the drugs, disappointment over having had to use pain medication, and surprise at the interventions being used (e.g., foetal monitor). Three of these four women reported the pain of childbirth as being worse than they expected. Overall, 11 women (61%) in the exploratory study postnatally reported the pain of childbirth as being worse than they expected.

In response to the question about what helped women maintain control over their own behaviour the most commonly cited help ($N = 14$) referred to the support given by the staff or their partners. Three women mentioned their mental focus or being open-minded about the event, whilst five referred to the breathing techniques, and three women mentioned the beneficial effects of the pain medication. Two women were disappointed with their lack of control, citing the effects of the gas or pethidine which made them feel distant from the event.

Conclusions from the Exploratory Study

The design of the main study became clearer as a result of the exploratory. The focus shifted from measuring the overall stressfulness of the event to attempting to assess what antenatal expectations and postnatal evaluations women held regarding labour and delivery and how these might influence satisfaction with the childbirth experience. Rather than replicate Bramadat's (1990) study, using the CEQ, the main study used the Antenatal Expectation Scale (AES) and Postnatal Evaluation Scale (PES) devised by the researcher. In order to compare the PEQ with Bramadat's CEQ,

a sub-sample of randomly selected women will complete both scales in the postnatal follow up.

An additional outcome from the pilot study was the development of a male version of the antenatal questionnaire. It was noticed that women chose to consult with their partners before responding to the expectation items in the antenatal questionnaire. Though sharing information was a natural response for couples in the antenatal environment it could influence the responses women make (e.g., Hawthorne effect). To control for respondent bias, a male version of the questionnaire was developed for the main study but it was not used in analysis. Men completing the questionnaire were informed that only their partners would be contacted in the postnatal follow-up.

Research Questions for the Main Study

The main study addresses the following research questions:

1. What is the extent of redundancy between LAS and other measures of control as predictors of satisfaction with childbirth?
2. Can a cognitively based short form measure of control adequately predict satisfaction relative to the affect based and longer LAS?
3. Relative to control, does the discrepancy between antenatal expectations and postnatal evaluations significantly account for first-time mothers' satisfaction with childbirth?
4. Do women with negative expectations perceive negative outcomes relative to women with positive expectations (i.e., self-fulfilling prophecy) ?
5. Do medical interventions influence women's reported levels of satisfaction and control associated with their childbirth experiences?

CHAPTER 4

The Main Study

Method

Subjects

The purposive sample ($N=80$) for the main study was selected from 107 women attending their fourth antenatal class run by midwives and physiotherapists from an 84 bed public suburban hospital in Perth, Western Australia. The women were informed about the study's requirements before being invited to participate. The criteria for inclusion into the study was that women be first-time mothers, attending antenatal classes given by the hospital where they delivered their babies. An additional criterion was that the women did not have caesarean sections, as the study's focus was to investigate the range of experiences and care received by primigravidas having vaginal births in a public hospital system. According to this hospital's policy, women who develop extreme complications during labour and delivery (i.e., baby premature, less than 35 weeks) are transferred to a specialist obstetric hospital.

The final sample was obtained by checking the women's birth records and 14 of the women were excluded because they did not fit the study criteria. Twelve women had caesareans, one woman lost her baby, and another woman's baby had complications. Another 13 women (12%) did not participate in the postnatal follow up due to factors arising from respondent mortality (Shaugnessy & Zechmeister, 1990, pp.98). These women were not followed up for the following reasons: change

of address, incorrect phone number, unable to be contacted, or were unwilling to be interviewed.

The mean age of participants was 26 (range 17 - 36). Seventy per cent of the women were married, with a further 18% in de facto relationships. The remaining 12% were either single or engaged. Fifty-two percent of the women were Australian born, 33% were from the United Kingdom, and the other 15% included women who were born in either New Zealand, Europe, Asia, or the United States of America. Thirty-nine percent of the women had completed up to Year 10, 25% had completed Year 12, whilst 21% had trade qualifications, and 15% had completed tertiary education.

Seventy-one women were clinic patients, requiring the medical and obstetrical expertise provided by hospital staff, whilst another seven women were private patients whose babies were delivered by obstetricians or general practitioners of their choice, and no clinic status was obtained for two women ($N=80$). One to two hospital midwives, as well as doctors or obstetricians, were present at each woman's birth, and in sixteen instances midwives alone delivered the babies. Additionally, student doctors were sometimes present during the sampling time-frame. Eighty-seven percent of the women understood the procedures explained to them, and 31% ($N=25$) discussed their labour and delivery with a midwife during their hospital stay. The average length of labour and delivery reported by the women was 13 hours (range .40 minutes to 48 hours).

Procedure

Women were invited to participate at the commencement of their fourth antenatal class conducted at a local family centre. These classes, which ran in five week blocks, were attended consecutively by the researcher over a seven month period. Wherever possible male partners accompanying these women were also requested to complete a male version of the antenatal questionnaire to control for response bias. No further use of the male questionnaire was made in the main study as the focus was on women's expectations and experiences.

Halfway through the data collection time, the classes were transferred from a local family centre to the public Hospital. Although the physiotherapist and hospital midwife team presenting the classes periodically changed at the end of each five week program, the information remained consistent.

Ethical considerations were adhered to by informing the women about the purpose and requirements of the study, and assuring them of its confidentiality. A letter of consent, requesting their voluntary participation was included on the cover page of the antenatal questionnaire.

Permission was obtained from the public hospital to access birth records so that women who fitted the study's selection criteria could be identified. The women were asked to report their expected due date, thereby enabling the researcher to regularly check the hospital records, screen for eligible cases, and schedule dates to conduct 20-30 minute interviews. The postnatal questionnaires were given as phone interviews conducted by the researcher, 4 - 6 weeks postpartum.

Questionnaire Data Coding and Screening

The antenatal and postnatal questionnaires were coded according to the method described in Chapter 3. All positively worded items in both the Researcher's AES and PES, and the LAS scale were reverse coded (see Appendix A). There was no missing data for the scales. An outlier was identified by an extremely low score on the Satisfaction Scale and this subject's scores on the 6 item Satisfaction Scale was substituted with the mean score so that the subject could be retained within the sample. Linearity, homoscedasticity, and distribution assumptions for Multiple Regression were met after examination of the scatterplots (see Appendix D for predicted values and residual plots) for all the scales used (LAS, AES, PES, P-A Discrepancy with Satisfaction). For the *t*-tests, unequal variance significant tests were used if Levene's test for equality of variance was significant ($\alpha = .05$). Given that the present study is exploratory, two -tailed test results were used ($\alpha = .05$) and all the statistical analyses are included in Appendix D.

Results

Means, Reliability and Validity Data for Scales Used in the Questionnaires

The alpha's, means, and standard deviations for the scales, reported in Table 4, are compared with results obtained by Bramadat and Driedger, 1993; Gupton et al., 1991; and Hodnett, Simmons-Tropea, 1987. The results obtained for a subset of the

sample ($N = 22$) who completed the CEQ postnatally are also shown. The resulting alpha is comparable to the alpha obtained by Gupton et al. (1991). The Cronbach

Table 4

Alpha's, Means, Standard Deviations for Scale Comparisons

Study	<u>N</u>	Alpha	Standardised item alpha	<u>M</u>	<u>SD</u>
Researcher's Study					
AES (12 items)	80	.66	.67	65.76	8.52
PES	80	.74	.74	63.86	11.18
CEQ (36 items)	22	.88	.89	134.77	21.16
LAS (25 items)	80	.95	.95	148.25	32.55
SATISFACTION (6 items)	80	.74	.73	34.99	5.83
CEQ (Gupton et al., 1991).	204	.82	—	—	—
LAS Hodnett et al., (1991)	44	.94	—	142.9	22.0
Satisfaction Scale (Bramadat & Driedger, 1993)	91	—	—	33.9	5.8

alphas reported for all the scales in Table 4 are comparable with the alphas reported in the pilot study (see Table 3). The internal consistency reflected by the obtained

alphas suggests that the scales are reliable measures for the predictor and outcome variables. Twenty-five of the 29 LAS items were used in this study (see p.35, Ch. 3) so to enable a comparison the reported mean for the LAS scale ($\underline{M} = 148.25$) was adjusted by dividing the obtained mean (127.81) with the number of items used (25) multiplied by the total number of items (29).

Postnatal Evaluation Scale

The overall mean of the alpha reliability analysis for the 12 item PES (range 7 - 84) was 63.86 ($\underline{SD} = 11.18$). Individual item means for partner support ($\underline{M} = 6.68$), midwife support ($\underline{M} = 6.71$), and receiving information from medical staff ($\underline{M} = 6.07$) were at the high end of the scale, indicating positive perceptions. Behavioural self-efficacy items were less positive: control over behaviour ($\underline{M} = 4.91$), use of breathing and relaxation ($\underline{M} = 4.27$), and getting into comfortable positions ($\underline{M} = 4.77$). The women disagreed about their not needing medical interventions ($\underline{M} = 2.85$), and they had moderate agreement about being in control of what doctors and midwives did to them ($\underline{M} = 5.17$), and taking part in decisions ($\underline{M} = 5.62$). For affective items, labour and delivery was reported to be a fulfilling experience ($\underline{M} = 5.41$), and the women were equally not disappointed ($\underline{M} = 5.40$).

Satisfaction Scale

The 6 item, 7 point Likert Satisfaction Scale (range 7 - 42) had a moderately high global mean ($\underline{M} = 34.99$, $\underline{SD} = 5.83$) with individual items displaying the following trends: overall satisfaction ($\underline{M} = 5.5$), pain ($\underline{M} = 5.21$), control ($\underline{M} = 5.01$), interventions ($\underline{M} = 5.70$), partner ($\underline{M} = 6.57$) and nursing staff ($\underline{M} = 6.63$). The latter two higher means showed that women were most satisfied with the personal and

hospital attention they received. From their study, Bramadat and Driedger (1993) reported a mean score of 33.9 (possible range 6-42) with 10% of their sample being fully satisfied ($M = 42$). This result is consistent with other measures of satisfaction that tend to be skewed towards the high end of the scale (Lomas, Dore, Enkin & Mitchell, 1987; Seguin, Therrien, Champagne, & Larouche, 1989).

Inter-Scale Correlations for Scales

Table 5 reports the Pearson product-moment correlations obtained between the Scales used in the study. To check the validity of the PES a subset ($N = 22$) of the Table 5

Inter-Scale Correlations for Scales

	LAS	AES	PES	P-A DISCREP	SAT.
AES (ANTENATAL)	.38 ***				
PES (POSTNATAL)	.74 ***	.40 ***			
P-A DISCREPANCY	.46 ***	-.36 **	.70 ***		
SATISFACTION	.79 ***	.29 **	.75 ***	.54 ***	
DRUGSINT .31 **	-.22	-.09	-.23 *	-.17	-
CEQ ***	.79 ***	.33	.72 ***	.45 *	.76

ALL SCALES $N = 80$ EXCEPT FOR CEQ SCALE ($N = 22$) SUB-SAMPLE OF TOTAL GROUP
 * $p < .05$; ** $p < .01$ *** $p < .001$ (two-tailed tests).

total sample also completed the CEQ postnatally. The correlation between the CEQ and the PES was strong, $r(22) = .72, p < .001$ demonstrating validity for the 12 item scale as an alternative instrument to the 36 item CEQ. The Postnatal Evaluation Scale $r(80) = .75, p < .001$ and the Las Scale $r(80) = .79, p < .001$ were both similarly and strongly correlated with the Satisfaction Scale. The AES had a weak to moderate correlation with the PES $r(80) = .40, p < .001$, and the correlation between the P-A Discrepancy variable and the Satisfaction Scale $r(80) = .54, p < .001$ was moderate.

P-A Discrepancy Variable and Trend for 12 Item Scales

A dependent t -test result indicated that the mean difference between antenatal expectations ($M = 65.76, SD = 8.51$) and postnatal evaluations ($M = 63.86, SD = 11.17$) was not significant $t(79) = 1.55, p > .05$, 4-6 weeks postpartum. Although this change in means was not significant the majority of scores on the 12 item scale (P-A Discrepancy) either increased or decreased (range -35 to +24) with only 5% of the women remaining unchanged in the postnatal measure (see Table 7). Two categories of women emerged: 49% of the women evaluated their antenatal expectations more negatively (-1 to -35) in the postnatal period and 46% reported more positive appraisals (range +1 to +24). The range of scores on the P-A Discrepancy for the sample was skewed towards a negative change.

To determine how the cognitively-based scales (AES and PES) developed by the researcher reflected women's perceptual shifts about control during labour and delivery, the frequencies of women's responses to each of the 12 items of the P-A

Table 6

The Questionnaire Items

Postnatal Questionnaire Items

- | | |
|-------|---|
| q.28 | I did not have control of what doctors and midwives did to me during lab/ delivery. |
| q.29. | I took part in decisions related to the care I received during childbirth. |
| q.30 | My labour and delivery was a disappointing experience." |
| q.31 | The midwives were very supportive. |
| q.32 | I didn't need medical interventions to help me deliver my baby. |
| q.33' | My labour and delivery was a fulfilling experience. |
| q.34. | My partner / spouse was not very supportive. |
| q.35 | I did control my pain through breathing and relaxation techniques. |
| q.36 | The medical staff didn't keep me informed about what happened during lab /del." |
| q.37 | I kept control of the way I behaved during labour and delivery. |
| q.38 | The medical staff made the right decisions for me during childbirth. |
| q.39 | I didn't get into comfortable positions during labour and delivery. |
-

Discrepancy variable were compared. The wording of the PES shown in Table 6 differs from the AES in tense only. For example, at the antenatal stage, for question one, women were asked whether they expected to have control over what doctors and midwives did to them. In the postpartum period women were asked to appraise their experience. Each paired item of the 12 item AES and PES were examined for dimensions of the scales most associated with negative or positive appraisals and these trends are reported in Table 7. The reported percentages for the scale items are descriptive and exploratory and do not warrant any statistical tests (e.g., Chi square).

Table 7

Direction of P-A Discrepancy Scores for AES and PES

Subset of Items	<u>n</u>	% negative	<u>n</u>	% same	<u>n</u>	% positive
Medical Control						
q. 28	31	40%	25	31%	24	29%
q.29	32	40%	37	37%	11	14%
q.36	26	33%	34	42%	20	25%
q.38	21	26%	21	26%	38	48%
Midwife / Partner Expects.						
q.31	10	13%	57	71%	13	16%
q.34	67	6%	51	64%	33	29%
Affective Expectations						
q.30	32	40%	31	39%	17	21%
q.33	22	28%	28	35%	22	28%
Behavioural Self-Efficacy						
q.35	37	46%	18	22%	25	31%
q.37	25	31%	15	17%	40	50%
q.39	32	40%	22	27%	26	33%
Medical Interventions						
q.12	45	56%	9	11%	26	32%

The percentages for each item within the subset for each scale revealed the following patterns of change for the whole group ($N = 80$). The majority of women became either more positive or more negative in their postnatal evaluations, though midwife and partner expectations remained relatively stable across the antenatal to postnatal period. In relation to behavioural self-efficacy, 46% of the women reported a negative shift postnatally for ability to control pain through breathing and relaxation, and a similar trend emerged for being able to get into comfortable positions, with 40% of the women reporting a negative shift. Fifty percent of the women became more positive in the postpartum about having control over their behaviour during labour and delivery. In the postpartum, 48% of the primiparas became more positive about medical staff making the right decisions for them (item 38), and furthermore, over half of the women (56%) saw interventions as having been necessary. Though these primiparas generally accepted hospital practices, 40% of them had become more negative around issues of medical and decisional control (scale items 28 and 29).

Comparison of Affective LAS and Cognitive PES

The first research question asks what is the extent of redundancy between the LAS and other measures of control as predictors of satisfaction with childbirth? In order to compare the relative importance of the different scales in accounting for the variance in Satisfaction, and to further examine the issue of predictor redundancy, the AES and PES were entered into alternative fixed order regression analyses. With all of the predictor variables entered into two alternative fixed modes of entry, 69% of the overall variance in Satisfaction was accounted for.

In the first order of entry (see Appendix D, Table A3) beginning with the AES, 8.3% of the variance in Satisfaction was accounted for, followed by the PES which added another 48% and lastly the LAS, added another 13%. In the second order of entry (see Appendix D, Table A4) the AES was again entered first (8.3%), followed by the LAS which added 55%, and the PES adding a final 6%.

In comparing the variance in Satisfaction accounted for by the LAS, and PES in the various fixed orders of entry, and also with the CEQ (see Table 8) it appears that a considerable overlap in scales occurs. With the LAS entered first, the unique variance added by the other scales is minimal. The strong correlations obtained between the Satisfaction Scale and the CEQ, PES, and LAS (see Table 5) also suggest that the measures overlap.

Comparison of Discrepancy Model with Bramadat and Driedger (1993)

The second research question asks whether a cognitively based short form measure of control (PES) adequately predicts satisfaction relative to the affect based and longer LAS. As reported in Chapter 3, Bramadat and Driedger (1993) found that the discrepancy between expectations and perception of childbirth did not predict women's satisfaction with childbirth. Instead, women's perception of control, as measured by the LAS, was found to be the best predictor and this finding was replicated by the current study.

In the first order of entry (see Appendix D, Table A3) with the P-A Discrepancy variable entered first, 29% of the variance in Satisfaction was accounted for, with the PES adding another 27% and the Las entered last adding a final 13%. In the second order of entry (see Appendix D, Table A4) entering the PES first 56% of the variance

in Satisfaction was accounted for, no change occurred when the P-A Discrepancy variable was entered second, then the LAS added a final 13%. When entered in first, both the AES and the P-A Discrepancy were significant in the Regression equations. However, when the PES or LAS were also added these measures were no longer significant. As shown by the results in Table 6 the cognitive based PES was as strong a predictor of Satisfaction as the LAS, which generally reflected women's feelings of control during labour and delivery. Arguably, this result demonstrates that the cognitively-based Postnatal Evaluation Scale, compared to the lengthy LAS, is a succinct and adequate measure of women's perceptions of control.

Redundancy Between Predictor Variables

The third research question asked: Relative to control, does the discrepancy between antenatal expectations and postnatal evaluations significantly account for first-time mother's satisfaction with childbirth? In order to answer this question, the present study extended beyond replicating the results obtained for the discrepancy model described by Bramadat and Driedger (1993) by developing the shorter AES and PES which were compared to the LAS.

Table 8 shows the comparison of results obtained by Bramadat and Driedger (1993) with the present study. The variance for the scales used in the present study were calculated from the squared bivariate correlations to enable a comparison with the results obtained by Bramadat and Driedger. Comparing the scales, it can be seen that the LAS results are similar for both studies with Bramadat and Driedger reporting that the LAS accounted for 59% of the variance in Satisfaction, compared to 63% obtained for the present study. In Bramadat and Driedger, the CEQ accounted for

Table 8

Satisfaction Variance: Comparing Study Results

Scale	Bramadat & Driedger (1993)	Current Study
AES	—	8.4%.
PES	—	56%
P-A DISCREPANCY	22%	29%
CEQ	48%	58%
LAS	59%	63%

48% of the variance in Satisfaction. This is compared to 58% for the CEQ , and 56% for the PEQ in the present study.

Influence of Antenatal Expectations on Appraisals of Birth Experiences

The fourth research question asked whether the self-fulfilling prophecy explained women's perceptions of the birth experience. Using the median score for the AES the sample was split into two groups, those having high antenatal scores ($N=40$) and those having low antenatal scores ($N=40$). There was a significant difference of -13.4 between the means for these two groups on the classification variable. Table 9 reports on the means, standard deviations, and t -test results for the high and low antenatal expectation groups on interventions, AES, PES, P-A Discrepancy, the LAS and Satisfaction. There were significant differences between the means for the two groups on the P-A Discrepancy $t(78)=2.62, p<.05$ and for the PES $t(78)=$

Table 9

T- test Results for Group Split on Antenatal Expectations

Variable	Group <u>M (SD)</u>		t	df
	Low	High		
Drugs	1.97 (.80)	1.85 (.92)	.65	78
Drugs (less epidural)	1.75 (.87)	1.60 (.81)	.80	78
Interventions	1.97 (1.12)	1.95 (1.24)	.09	78
Drugs+ Interventions	3.95 (1.55)	3.80 (1.75)	.40	78
AES (Antenatal)	59.05 (6.3)	72.47 (3.78)	11.50***	63
PES (Postnatal)	60.25 (10.50)	67.47 (10.77)	3.04**	78
P-A Discrepancy	1.2 (11.01)	-5.00 (10.15)	2.62*	78
LAS	119.67 (33.95)	135.95 (29.29)	2.30	78
Satisfaction	33.72 (5.77)	36.25 (5.68)	1.97	78

(2 Tailed tests) * <.05, ** <.01 ***< .001

-3.04, $p < .01$. There were no significant mean differences between the two groups on the medical variables: drugs (less epidurals), all drugs (including epidurals), interventions, and total interventions and drugs. Hence, antenatal expectations did not influence the medical interventions women experienced during labour and delivery, suggesting that the latter had a greater impact upon women's perceptions of control and subsequent satisfaction.

Qualitative Expectation Data

The postnatal questionnaire also included closed and open-ended questions regarding women's expectations about labour and delivery. The women were asked whether they had failed to meet their expectations or not, and they were also asked to rate the painfulness of their labour and delivery as being better, no different, or worse than they had expected. Overall, 44% of the total sample ($N=80$) reported the pain of childbirth as being worse than they expected, 14% said it was the same, 32% said it was better, and 10% did not know. For 29% ($N=23$) of the women who felt that they had failed to meet their expectations, 13 of them (56%) reported the pain had been worse than expected. as the following comments illustrate: "I'm not good with pain, I wanted an epidural. I was frightened" and: "Never thought I couldn't cope with pain....had as many drugs as I did."

Women's sense of control was also affected by perceptions of coping as typified by this woman's comments:

I thought I could handle the pain better through breathing but I didn't. The antenatal classes drum in that you cope by breathing but there was no way I

could cope. I had pethidine and I wanted more. Felt like I wanted to be knocked out. I felt it was a bit misleading. I feel now that I would have liked to be more connected. My body felt separate to my mind.

On the other hand, 71% ($N=57$) of the women who said that they had not failed to meet their expectations 39% ($N=22$) of them reported that the pain had been worse than expected, another 37% ($N=21$) said the pain was better than expected, and the remainder ($N=14$) found that it had been the same as their expectation. The qualitative data obtained for the twenty-one women who said that the pain had been better than expected were positive in tone, suggesting that the pain of childbirth had been viewed as a challenge which they could cope with. The notion of being openminded and not having expectations was a common theme for this group as this comment illustrates: "I didn't set myself up with expectations, why set yourself up to fail. Roll with the punches." Appendix E includes the women's comments about their expectations.

Impact of Medical Interventions and Pain Relief Medication

Table 10 summarises the medical interventions used to induce women's labour, other methods of assisting women, and types of pain medication used. In order to answer the fifth research question, assessing the effects of medical interventions on women's perceptions of control and satisfaction with childbirth the level of interventions is first described and then tests of differences between high and low intervention groups are presented.

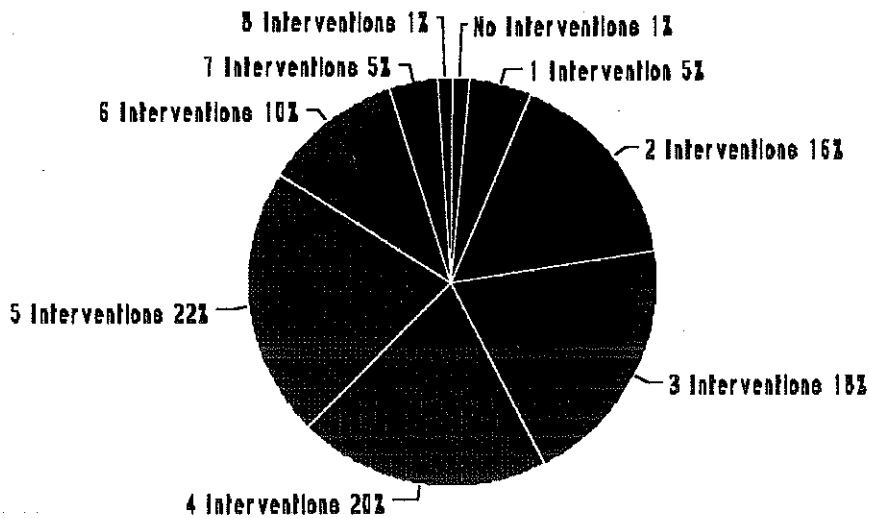
Figure 1 summarises the total number of interventions, including methods of pain relief that the women required. Sixty-eight percent of the women had 3 -6

Table 10

Interventions Used During Labour and Delivery

Type of intervention	<u>N</u>	%
Medication		
Epidural	19	23%
Morphine	20	25%
Pethidine (once)	58	72%
Pethidine (twice)	7	8.6%
Nitrate Oxide (gas)	49	60%
No medication	2	2.5%
Medical Procedures		
Augmentation Rupturing Membranes (ARM)	22	27 %
Iv synct drip	22	27%
Induction of labour (ARM)	17	21%
Prostaglandin	18	22%
IV synct. drip	15	18%
Episiotomy	36	44%
Forceps delivery	5	6.2%
Ventose (vacuum)	22	27%

Figure 1

Breakdown of Total Interventions and Drugs Women Had

interventions during labour and delivery, supporting the finding reported in Chapter 1, that the majority of Western Australian women have interventions during childbirth (Ministerial Report, W.A., 1995). The number of women who had either minimal or maximum interventions was small.

Forming Groups on Severity of Interventions

A cross tabulation of drugs by interventions for the two groups revealed a general tendency, the more interventions women had, the more pain relief medication was required. The low intervention group ($N=40$) consisted of women who did not have an epidural, and who had up to and including two interventions or analgesics for pain

relief. The high intervention group ($N=40$) comprised of women who had epidurals, and /or three or more interventions, or three or more analgesics. The distinctions were made on the basis of how restricted a woman might feel since the epidural service and induction methods, requiring the use of drips, confined a woman to her bed. Additionally, the amount of pain medication taken could lessen a woman's sense of having personal control, though some analgesics (e.g., gas) affect physical control less than others (e.g., epidural). The rationale for dividing the group into high versus low interventions reflected the notion that the more intrusive the interventions (e.g., induction, forceps) the less likely women would perceive themselves to be in control. The cumulative effect of both analgesics and interventions could also be invasive. The basis for this rationale was determined in consultation with a nursing researcher (C. Thorogood, August 19, 1995, personal communication), and recognises that the use of interventions can have a 'cascade effect' (Ministerial Report, W.A., 1995).

This refers to where one fairly minor intervention such as induction leads to others. The 'cascade effect' is most likely to occur when labours are induced, and/or where epidural analgesia is used (Ministerial Report, W.A., 1995).

Effects of Medical Interventions on Women's Birth Experiences

The final research question tested the influence of medical interventions on women's sense of control and satisfaction with childbirth. Independent t tests confirmed that the high versus low severity groups differed significantly on total drugs taken, drugs less epidurals, total interventions, and drugs plus interventions. Independent t -tests were then conducted to check whether there were significant

Table 11

Independent t -test Results for High - Low Intervention Groups

Variable	Group <u>M (SD)</u>		t	df
	Low	High		
Drugs	1.45 (.60)	2.37 (.84)	5.69***	78
Drugs (less epidural)	1.45 (.60)	1.90 (.98)	2.48*	78
Interventions	1.25 (.74)	2.67 (1.09)	6.81***	78
Drugs+ Interventions	2.70 (1.04)	5.05 (1.26)	9.99***	75
AES	67.20 (7.62)	64.32 (9.20)	1.52	78
PES Postnatal	67.95 (11.00)	59.77 (9.88)	3.50 ***	78
P- A Discrepancy	.75 (9.16)	- 4.55 (12.07)	2.21*	72
LAS	133.92 (33.28)	121.70 (31.02)	1.70	78
Satisfaction	36.72 (5.76)	33.25 (5.43)	2.78**	78

(2 Tailed tests) * <.05 **< .01 ***<.001

group differences on AES, PES, P-A Discrepancy, LAS, and Satisfaction (Table 11). The two intervention groups differed significantly on the mean number of drugs and interventions used. There were no significant differences between the two groups on the AES and the LAS. There was a significant difference between the groups on the PES $t(78) = -3.50, p < .001$, with the high intervention group having a lower ($M = 59.77, SD = 9.88$) result, indicating less positive postnatal evaluations than the low intervention group ($M = 67.95, SD = 11.00$). There was a significant difference between the groups on the P-A Discrepancy $t(72) = 2.21, p < .05$, with the high intervention group ($M = -4.55, SD = 12.07$) compared to low intervention group ($M = .75, SD = 9.16$). The differences in group means for satisfaction were also significant $t(78) = 2.78, p < .01$ with women in the high intervention group being less satisfied ($M = 33.25, SD = 5.43$) than women in the low intervention group ($M = 36.72, SD = 5.76$). A distinct pattern emerged from the t -test result for the P-A Discrepancy variable. Women in the high group changed in a more negative direction ($M = -4.55$) than women in the low group for whom there was little mean change ($M = .75$). Lastly, a comparison of the significant t test results with the obtained correlations (see Table 5) further confirmed that the combined use of drugs and interventions was negatively related to women's perceptions of control as measured by the PES $r(80) = -.23, p < .05$, and Satisfaction $r(80) = -.31, p < .01$.

CHAPTER 5

Discussion

Control during labour and delivery and its relationship to women's satisfaction with their childbirth experiences is one component of research into factors influencing women's emotional adjustment to motherhood (Brewin & Bradley, 1982; Hodnett & Simmons-Tropea, 1987). Women's experiences and perceptions of the birth event affects their emotional wellbeing in the postpartum period (Humenick, 1981; Willmuth, 1975). Studies which have included measures of emotional wellbeing (Green et al., 1990; Oakley, 1983) report a link between dissatisfaction with childbirth experiences and poorer psychological outcomes. An association between the use of obstetrical interventions during labour and delivery and increased dissatisfaction has also been reported overseas (Chalmers et al., 1989; Green et al., 1990) and in Australia (Brown & Lumley, 1994; Ministerial Report, W.A., 1995).

'Soft' versus 'Hard' Outcomes

The components of 'soft outcomes' as opposed to 'hard outcomes' (i.e., objective measures of infant or maternal mortality rates, or condition of health) include physical pain, disturbances in family relations or mothering behaviour, and increased dissatisfaction with the childbirth experience. To determine what constitutes a 'natural' childbirth experience in Western cultures, both dimensions must be considered (Oakley, 1983). However, the measurement of psychosocial outcomes

(i.e., 'soft outcomes') is problematic in that the tools to measure childbirth expectancies and outcomes rely on fixed Likert Scales in the form of forced choice questionnaires for constructs such as control and satisfaction which are highly subjective and complex (Shearer, 1983). Additionally, the methods of measuring these constructs are also limited by the effects of time, place, and person (Lumley, 1985). Nonetheless, present research into the psychosocial aspects of women's childbirth experiences has acknowledged these difficulties and seeks an integrated approach that measures the obstetrical experience of childbirth alongside women's expectations for and perceptions of control during labour and delivery, and their subsequent satisfaction (Bramadat & Driedger, 1993; Brown & Lumley, 1994; Green, et al., 1990).

Defining Control and Satisfaction

The present study investigated women's expectations regarding labour and delivery, compared to their perceptions of control during the event, and their experience of medical technology. The influence of these variables on first-time mother's satisfaction with childbirth concurred with the research findings of Bramadat & Driedger, 1993; Brown & Lumley, 1994; Green, et al., 1990. Overall, these researchers found that the factors most associated with women's satisfaction were strongly defined by a sense of intrapersonal control which described the quality of the relationship women developed with health care professionals assisting them during labour and delivery. Green et al. found four factors to be most associated with childbirth satisfaction: decision - making concerning minor and major interventions, coping with pain, and staff care. Seguin, Therrien, Champagne, and

Larouche (1989) further identified five interrelated factors which influenced women's satisfaction 4 -7 weeks after delivery, namely: the experience of delivery, the medical and nursing services received, information and participation in decision - making, and the physical environment. Research findings such as these consistently reflect the reciprocal nature of control as outlined by Bandura (1982, 1986) and how the attributes of specific settings affects psychobiologic functioning (Bandura, 1993) since efficacy in dealing with environmental demands requires that individuals organise their cognitive, social, and behavioural skills into integrated courses of action that facilitates their achieving valued goals . First-time mothers delivering within hospital environments do not expect to have total control over what happens to them. Rather their notion of control relies upon an expectation of support from their caregivers, in whom they have placed their trust (Balaskas, 1992; Meikle, 1990; Naaktgeboren, 1989; Savage, 1992). Subsequently, receiving information from health care professionals and feeling in control of what medical staff do to them strongly influences how women evaluate their birth experiences. Green et al. (1990) described how womens self-concept was affected by their being included in the care they received since a sense of physical involvement and comfort counteracted the feeling of being 'a lump of meat' and ...' on a conveyor belt', to whom things were done (p. 22). This feeling of control, derived from the relationship women had with the medical staff, had a stronger relationship to psychological outcomes such as satisfaction and emotional wellbeing than the experience of interventions per se.

Research Findings of Present Study

Essentially, two themes were explored in the present study, the first pertaining to the measurement of 'soft outcomes' and the second, dealing with 'hard outcomes', that is, the effect of medical interventions upon women's sense of control and satisfaction. Firstly, the notion that women's expectancies and perceptions of control were linked to satisfactory outcomes was explored by devising scales to measure these dimensions. These scales were contrasted with the measurements used by Bramadat and Driedger (1993), whose research findings were also replicated.

Replication of Bramadat and Driedger's Study Results

The results for the present study replicated Bramadat and Driedger's discrepancy model, which utilised a consumer based model of satisfaction . According to Hunt (cited in Bramadat & Driedger, 1993) satisfaction is a cognitive as well as an affective construct since people evaluate their emotional responses to an event. Discrepancy theory posits that the discrepancy between expected and perceived outcomes is the best predictor of satisfaction. However, in the present study, and in Bramadat and Driedgers' study, the discrepancy model did not significantly account for the variance in women's satisfaction with childbirth. Instead, women's perception of control during labour and delivery, as measured by the Labour Agency Scale was found to be the best predictor of women's satisfaction 4-6 weeks postpartum. In the present study, when entered alone, the LAS accounted for 63% of the variance in satisfaction and this was comparable to the 59% reported by Bramadat and Driedger. Additionally, the Postnatal Evaluation Scale (PES), as an alternative measure of the

control dimension, when entered alone accounted for 56% of the variance in Satisfaction and this result was comparable to a similar but longer instrument, the Childbirth Expectation Questionnaire (CEQ) developed and tested by Bramadat and Driedger, which they found accounted for 48% of the variance in Satisfaction. The results for a sub-sample ($N=22$) of the present study completing the CEQ postnatally indicated that 58% of the women's satisfaction with childbirth was accounted for by the CEQ when entered alone. Overall, regardless of order of entry in the regression analyses, 69% of the variance in Satisfaction was accounted for by the measures used in the study: AES, PES, LAS, and P-A Discrepancy. This suggested that the variance in women's satisfaction with childbirth was related to scales measuring cognitive and affective aspects of control. As discussed in Chapter 4, there was a considerable overlap between the scales used (CEQ, LAS, and PES) to account for variance in Satisfaction. It can be argued that the control dimensions of the other scales were negated by the influence of the LAS.

A Comparison of Scales: CEQ, LAS, and Antenatal and Postnatal Scales

The AES and PES developed by the researcher, incorporated the subscales of the CEQ (i.e. pain and coping, use of interventions, partner and staff support) as well as the components of control outlined in the earlier part of this chapter, namely having control over what was done to one, participation in decision - making, affective states, and behavioural self-efficacy. Bramadat and Driedger (1993) used the LAS Scale as an alternative measure of personal control because control did not emerge as a robust independent dimension from an exploratory factor analysis of the CEQ. A

better strategy may have been to refine the control subscale of the CEQ, since this scale had a stronger cognitive base and was less ambiguous than the LAS.

In comparing the results obtained by the 12 item PEQ with the 25 items of the LAS, which were both used to measure women's perception of control during labour and delivery, a number of issues related to the weakness of the LAS became apparent. Essentially, the LAS was an affective measure which asked women, 4-6 weeks postpartum, to rate their personal sense of control according to how they had felt during labour and delivery. This scale did not measure cognitive evaluations women might have had regarding aspects of the care they received. Other items did not take account of the effect of pain relief medication which could have coloured women's responses (e.g., "everything seemed unclear and unreal, or alternatively, everything seemed peaceful and calm"). This ambiguity was also confounded by the reverse coding of all positively worded items, as it was not always clear which items were positively worded, or whether a statement of agreement was really an indication of passive resignation (e.g., "I was accepting what was happening"). Furthermore, the higher correlation obtained for the LAS may have capitalised on the affective response style of the LAS and Satisfaction measures.

In contrast, the researcher's 12 item Antenatal Expectations and Postnatal Evaluation Scales were more cognitively based. In the postpartum period women were asked to disagree or agree with statements that evaluated different aspects of control experience during labour and delivery. The shorter scale was comparable to the longer LAS in predicting Satisfaction.

An analysis of trends obtained for the discrepancy between antenatal and postnatal responses to the scales, reported in Chapter 4, indicated that the measure was sensitive enough to detect how women's expectations had changed. The response trends described which aspects of the labour and delivery experience were rated more highly. Women's sense of control, as measured by the scales developed for the study, encompassed aspects of the medical and technical care received. For this sample of first-time mothers, sense of control was mostly determined by the appraisal that medical staff had made the right decisions for them. They also came to believe that medical interventions had been necessary to assist their labours and deliveries, whilst the use of breathing and relaxation techniques for coping with the pain were evaluated as having been less effective than expected. The women's comments reported in Chapter 4 lend support to this finding and suggest that pain relief medication was sought as a means of coping. Furthermore, some of the women reported being fearful about the painfulness of childbirth and this is a major issue for parturient women (Ministerial Report, W.A., 1995).

Finally, in the postpartum period, 33% of the women became more negative about the medical staff not having kept them informed about what happened during labour and delivery, whilst 42% of the women felt the same in the postpartum, and 25% became more positive.

Self-fulfilling Prophecy

The results obtained for the discrepancy between Antenatal Expectations and Postnatal Evaluations for the two groups split according to high versus low scores on the AES did not lend strong support to the self-fulfilling prophecy. Instead, the means

for the two groups converged in the postpartum, suggesting that women's postnatal appraisals had become more alike. In fact, women with lower antenatal expectation scores remained relatively unchanged, whilst women who had higher antenatal expectations became more negative in the postpartum. The discrepancy between Antenatal Expectations and Postnatal Evaluations was not as important in determining outcomes as other measures of the childbirth experience (e.g., PES, use of interventions, and the LAS). Indeed, the results suggest that the self-fulfilling prophecy was not a general effect that predetermined evaluations afterwards, since prior expectations are of less importance than the childbirth experience itself (e.g., degree of medical interventions, and perceptions of control).

On the other hand, Green, Kitzinger and Coupland (1990) found that negative expectations were more likely to be associated with poorer psychological outcomes. This finding contradicted the common stereotype held about women with high expectations being prone to greater disappointment. Green et al. found that women's expectations were realistic. Women who expected to get into comfortable positions and use breathing, did so, and were able to because of their relationship with caregivers. In their study, women who felt that they had received enough information scored highly on outcome measures of Emotional Wellbeing, Fulfillment, Satisfaction, and Control.

Concurring with Bramadat and Driedger (1993) and, to an extent, with Green et al. (1990) the present study found that satisfaction for first time mothers was more related to what was medically experienced during labour and delivery, and the evaluation of care received, than to prior expectations.

Effect of Level of Medical Interventions

From the results reported in Table 7, women in the high intervention group evaluated their birth experiences less positively on the PES and LAS than women in the low intervention group. Women in the high intervention group were also less satisfied overall than women in the low intervention group. These significant group differences lend support to the notion that the degree of interventions women experience affects sense of control during childbirth, and subsequent level of satisfaction. In their study of Australian women, Brown and Lumley (1994) reported a similar result with primiparas being more dissatisfied according to use of pain medication, degree of intervention, and finding the pain to be worse than expected.

Limitations of Measuring Satisfaction

A methodological shortfall of quantitative satisfaction measures is that women generally report an overall high level of satisfaction, but this does not reflect their degree of satisfaction with different aspects of their labour and delivery experience, which must also be measured (Bramadat & Driedger, 1993; Brown & Lumley, 1994; Lumley, 1985; Oakley, 1983; Shearer, 1983).

Bramadat and Driedger's 6 item Satisfaction scale included an overall measure, as well as component measures of satisfaction. They found this scale to be stable across time, according to a test-retest analysis, as the item rankings and overall mean scores remained relatively similar 24 - 48 hours postpartum compared to 4 - 6 weeks postpartum. The women in their study reported the greatest amount of satisfaction with nursing and partner support, whereas they were less satisfied with their ability to

cope with pain, and the amount of control they had. A similar result was obtained in the present study which used Bramadat and Driedger's Satisfaction scale. This sample of first time mothers reported a moderately high level of satisfaction overall and were most satisfied with partner and with nursing support. Women were less satisfied with their own ability to cope with pain, amount of control, and amount of interventions.

Seguin et al. (1989) point out that high levels of satisfaction, characteristic of perinatal services, can be attributed to a halo effect. Women are often asked to complete questionnaires shortly after their labour and delivery experiences, at a time when they are likely to be feeling euphoric. Additionally, women are unlikely to criticise the medical system or caregivers who request them to evaluate the services they received. Instead, they are more likely to give socially desirable and medically approved responses, crediting the health care system with the positive outcomes they report (Lumley, 1985).

Shearer (1983) reports that women develop a loyalty to their own birth experience, for they condone what they experienced as having been in their best interest. Meikle (1990) maintains that many women believe medical interventions during childbirth are the socially accepted norm, ensuring a safe and healthy outcome. How women rate their satisfaction with childbirth suggests that an accommodative mode of coping is utilised (Brandstadter, 1993; Heckhausen, 1993) in that cognitive and emotional processes, along with social norms serve to diminish the impact of aversive experiences. Aware of these pitfalls, Shearer (1987) argues that fixed scale questionnaire methods elicit fewer negative responses than open-ended interviews.

Instead, indirect measures of satisfaction are more likely to detect subtle differences between aspects of women's birth experiences.

The present study addressed the shortcomings associated with quantitative measures of satisfaction by having an independent researcher administer the measures 4 - 6 weeks postpartum. The Satisfaction Scale had been previously tested and found to be a reliable measure of overall satisfaction, as well as specific aspects of the birth experience. This Satisfaction Scale corresponded to the sub-scales of the CEQ, and the AES and PES. In addition, open ended questions were used including questions asking women to describe what made them lose control, and what, if anything, prevented them from getting into comfortable positions during labour and delivery. Time constraints and the quantity of material prevented the inclusion of this qualitative data which would have helped to detail the personal and medical processes that contributed to women's self-efficacy during childbirth. It is anticipated that a separate paper which applies a qualitative research approach will augment the findings of the present study which focused on quantitative measures. Qualitative research findings (Bramadat & Driedger, 1993; Lumley, 1985; Simkin, 1991) specifically articulate the individual differences in satisfaction that women report, and which aspects of their personal control are mostly remembered. Brown and Lumley (1994) found that, when compared with their medical records, women do provide accurate reports about their pregnancies and childbirth experiences.

Limitations of Current Study

A major limitation of the current study echoes the difficulties of measuring 'soft' versus 'hard' outcomes which have been discussed. To improve the quantitative

measures of control and satisfaction affective and cognitive ratings of each item reflecting different aspects of the labour and delivery experience could be used. Additionally, the importance or value of each item could be rated, permitting weighted scores to be calculated. This would further the concern of researchers (Bramadat & Driedger, 1993; Shearer, 1983, 1987) who recommend that the value and importance of childbirth processes and outcomes be measured. The AES and PES could be refined to better measure which weighted cognitive and affective responses reflect control, or self-efficacy evaluations. Furthermore, an item that enables women to rate the painfulness of labour and delivery also needs to be included in the researcher's scales as this important aspect was only measured in retrospect.

To address the change in women's perceptions that is likely to occur through time, a longitudinal, intensive, process oriented research design would be needed. In other words, a 7 - 9 month follow up study with this sample of women would enable a comparison to see if perceptions of control and degree of satisfaction had significantly altered. Cross-sectional research designs provide only limited insights into the dynamics of human behaviour, cognition, and feeling since they cannot precisely describe how women accommodate and assimilate their experience (Shaughnessy & Zechmeister, 1990).

Another limitation of this study was that the effects of various confounding factors were not controlled (e.g. duration of labour, number and type of medical staff present, and social support). Hospital data was not collected to clarify which circumstances led to women requiring the specific use of medical interventions. It

was assumed that obstetrical and medical interventions were used because women had or developed complications during labour and delivery that necessitated their being used. However, other scientific research has investigated a wide range of factors that affect women during pregnancy and parturition (Chalmers et al., 1989; Wagner, 1994).

Since so many human and environmental factors interact in the childbirth experience, it is almost impossible to objectively measure and evaluate all the physical and psychosocial aspects of what women come to experience during childbirth. In exploring both 'hard' and 'soft' outcomes of the childbirth experience the present study attempted to compare results from medical data with the reported experiences of first-time mothers delivering within a public hospital environment.

It is recognised that the results for this sample of women cannot be fully generalised to other samples of women delivering within different environments (e.g., birthing centres, private hospitals) or countries with different health systems. The criteria used for inclusion into the study further limits its generalizability (e.g., non-inclusion of caesarean and multiparas). Hence, the mean levels obtained for the scales used in this study cannot be directly equated with the mean results for women in other studies who do not fit these criteria.

Application of Research Results

The present study developed shorter scales to measure psychosocial outcomes that were comparable to other longer scales developed within nursing research overseas.

The development of concise scales has utility for health care professionals as it enables them to measure women's perceptions about childbirth during the antenatal, intrapartum, and postnatal time frames. Measures such as these also have a diagnostic value, enabling health care providers and antenatal educators a means of assessing women's expectations about childbirth (e.g., pain) in the antenatal period.

Furthermore, women's evaluations of the professional services and care they receive are valid sources of information that can effect policy changes to improve the options of care and delivery of medical services for all pregnant and parturient women.

Independent evaluations of the hospital care that women receive also provides an opportunity for health care providers and others to foster interdisciplinary communication and research which can be applied. Indeed, a greater collaboration between medical and nursing professionals and other researchers utilising psychological paradigms and theories would help develop and refine more psychometrically sound instruments to measure complex psychosocial constructs such as satisfaction and control. Other studies need to follow up the preliminary work of the present study in developing better methodologies capable of evaluating alternative models of childbirth.

Contribution of Present Research

The present study described the hospital birth experiences of first-time mothers. In Australia, awareness has grown about the limited range of choices available to women since the majority of childbirths occur within public or private hospitals, under the care of obstetricians or doctors (NHMRC, 1994; Ministerial Report, W.A., 1995). In addressing these issues, the Australian government has funded the

development of infrastructures that can provide alternative models of care for pregnant and parturient women. In Western Australia this has led to the establishment of some family birthing centres, which are attached to hospitals.

However, other models that promote continuity of care and report satisfactory outcomes for women have also been investigated (NHMRC, 1994; Ministerial Report, W.A., 1995). A recent research study in New South Wales trialled (Rowley, et al., 1995) a team-midwifery approach to care. This model was more cost effective, as safe and effective as routine hospital care, and as was associated with improved satisfaction for the women.

A present shortage of obstetrical services in Western Australia brought about by high indemnity insurance premiums has impacted upon the delivery of services general practitioners are willing to provide. Given that women have limited options of care to choose from, an ongoing political and social concern is to facilitate the provision of different models of care (e.g., shared professional care, team midwifery) that can operate within hospital systems as well as the wider community.

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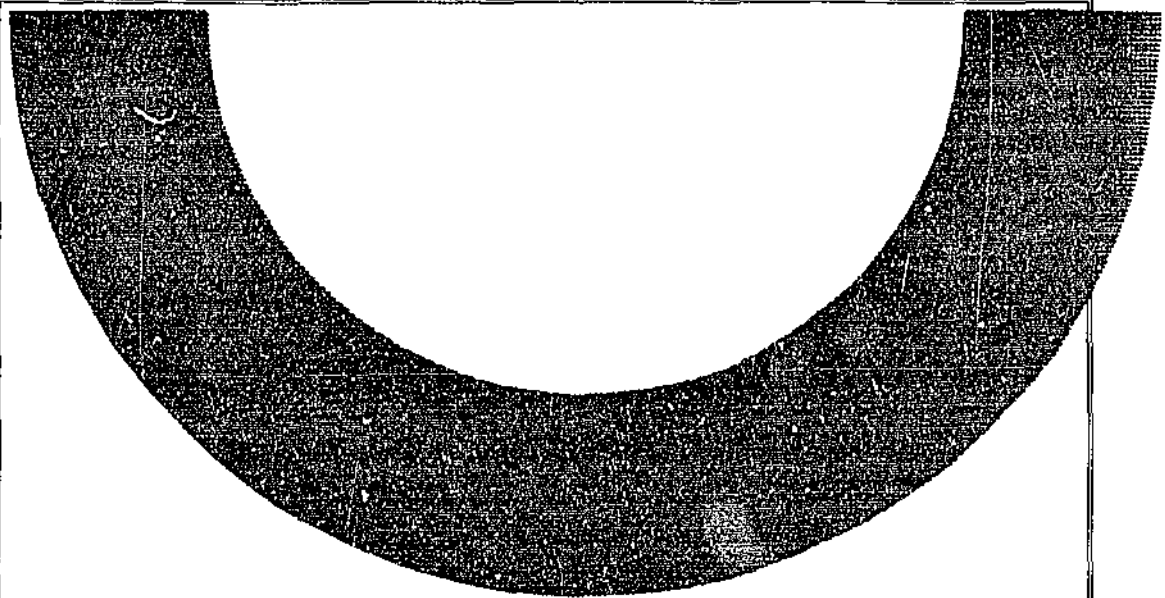
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APPENDIX A

Pilot Study Antenatal Questionnaire

Instructions for Coding of Scales Used in Questionnaires



Dear Participant,

I am an Honours student who intends to conduct a study based on labour and delivery experiences for first-time mothers.

Your feedback on the following short questionnaire will provide invaluable information in the planning process. Please complete the items and feel free to comment upon any questions that you find confusing.

No names or addresses are necessary.

I can be contacted on: [REDACTED]

Yours faithfully,
Clelia Tedeschi.

Thank You

Please TICK only one BOX for each question.

1. Is this your first pregnancy? Yes ☐ No ☐
2. Have you required medical treatment during your pregnancy?
(e.g. drugs or hospital) Yes ☐ No ☐ If you answered No please
do not continue.
3. What is your age? _____
4. Your educational qualifications
☐ up to year 10 ☐ completed Yr 12 ☐ Trade or Technical
☐ Tertiary Other _____
5. Your marital status. ☐ Married ☐ De-facto ☐ Single
6. Annual income for your household.

☐ under \$20,000
☐ under \$30,000
☐ under \$40,000
☐ under \$50,000
☐ over \$50,000
7. Where were you born? _____
8. How many ante-natal classes have you attended?
☐ none ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 Other, please specify _____
9. How many ante-natal classes has your spouse/partner attended?
☐ none ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- 9(a). Besides the hospital staff, who else will be at your labour and delivery?
(tick the boxes that apply)

☐ partner ☐ friend ☐ specialist ☐ own doctor
other, please specify _____

10. Attending ante-natal classes has helped me:

Prepare for labour and delivery ☐ greatly ☐ fairly ☐ not at all

Learn about hospital procedures ☐ greatly ☐ fairly ☐ not at all

Communicate my needs with hospital staff ☐ greatly ☐ fairly ☐ not at all

Find out that I have a choice in intervention procedures (e.g. *episiotomy*)
☐ greatly ☐ fairly ☐ not at all

11. How many books have you read about childbirth?

☐ none ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more

12. Circle a **number** on every line which best shows how you feel about this statement.

I EXPECT MY LABOUR AND DELIVERY WILL BE.

1-----2-----3-----4-----5-----6

good bad

1-----2-----3-----4-----5-----6

pleasant painful

1-----2-----3-----4-----5-----6

happy unhappy

1-----2-----3-----4-----5-----6

healthy sick

1-----2-----3-----4-----5-----6

comfortable uncomfortable

1-----2-----3-----4-----5-----6

easy hard

13. Circle one number for each statement as it best applies to you.

I believe the medical team will make the right decisions for me.

Strongly Agree 1 2 3 4 5 Strongly Disagree

What I experience in childbirth will increase my self-confidence.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I expect to be in control of what doctors and midwives
do to me during my labour

Strongly Agree 1 2 3 4 5 Strongly Disagree

I want to take part in decisions related to the care I
receive during childbirth.

Strongly Agree 1 2 3 4 5 Strongly Disagree

Active participation in labour and delivery is not important.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I believe I can cope with the pressure of a natural delivery

Strongly Agree 1 2 3 4 5 Strongly Disagree

I intend to have pain killers.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I have less control over the environment than others.

Strongly Agree 1 2 3 4 5 Strongly Disagree

14. *Circle one number for each statement as it best applies to you.*

I don't expect to have control over what doctors and midwives do to me during labour and delivery.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

15. I want to take part in decisions related to the care I receive during childbirth.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

16. My labour and delivery will be a disappointing experience

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

17. I expect the midwives will be very supportive.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

18. I won't need medical interventions to help me deliver my baby.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

19. I expect my labour and delivery will be a fulfilling experience

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

20. My partner / spouse won't be very supportive

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

21. I will control my pain through breathing and relaxation techniques.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

22. The medical staff won't keep me informed about what happens during labour and delivery

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

23. I expect to keep control of the way I behave during labour and delivery.
Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
24. The medical staff will make the right decisions for me during childbirth.
Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
25. I don't expect to get into comfortable positions during labour and delivery
Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

Here is a list of words that some women have used to describe their feelings about being pregnant.

Please CIRCLE ALL of the words that describe how you generally feel

excited	resentful	confident
happy	anxious	nothing special
fulfilled	depressed	protective
maternal	beautiful	angry
invaded	powerful	out of control
ugly	in control	stressed
vulnerable	detached	serene

Please comment upon difficult or unclear parts of this questionnaire.

Is there anything you would like to add to this questionnaire?

Thankyou for your kind participation

Pilot Study

Instructions for Coding Scales Used in the Questionnaires:

1. Ten item 'Prenatal Attitude Towards Childbirth Participation Scale' by Humenick and Bugen (1981)
 2. Researcher's 8 item initial Antenatal Expectation Scale.
- Both these scales used a 7 point Likert Scale where 1 = Strongly Agree and 7 = Strongly Disagree.
- All positively worded items are to be reverse scored so that 1 = Strongly Disagree and 7 = Strongly Agree.

Questionnaire Items: 1, 2, 4, 5, 6, 8, 9. (Humenick & Bugen)

14, 16, 17, 18, 20, 22, 23. (Researcher's AES)

Questionnaire item 13, semantic differentials. Uses a 6 point Likert Scale where most negative feeling has the higher score. Overall Score indicates overall positive or negative expectation. Note: This Scale was dropped from the Questionnaire used in the Main Study

Q. 16 Adjectives describing how women felt about themselves were not utilised, and were dropped from subsequent questionnaires.

Main Study

Instructions for Coding Scales Used in the Questionnaires:

All the Scales used a 7 point Likert Scale.

The Antenatal Expectation and Postnatal Evaluation Scales:

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

All positively worded items were reverse scored so the more positive the response, the higher the score.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Reverse Score

Antenatal Expectation Questionnaire Items: 14, 16, 17, 18, 20, 22, 23.

Reverse Score Postnatal Evaluation Items: 29, 31, 32, 33, 35, 37, 38.

The Labour Agency Scale (LAS) 25 items used (range 7 -175)

Almost Always 1 2 3 4 5 6 7 Rarely

All positively worded items to be reverse scored where:

Rarely 1 2 3 4 5 6 7 Almost Always

Reverse Score Questionnaire Items: 1, 3, 5, 7, 8, 15, 16, 20, 23, 24.

Satisfaction Scale

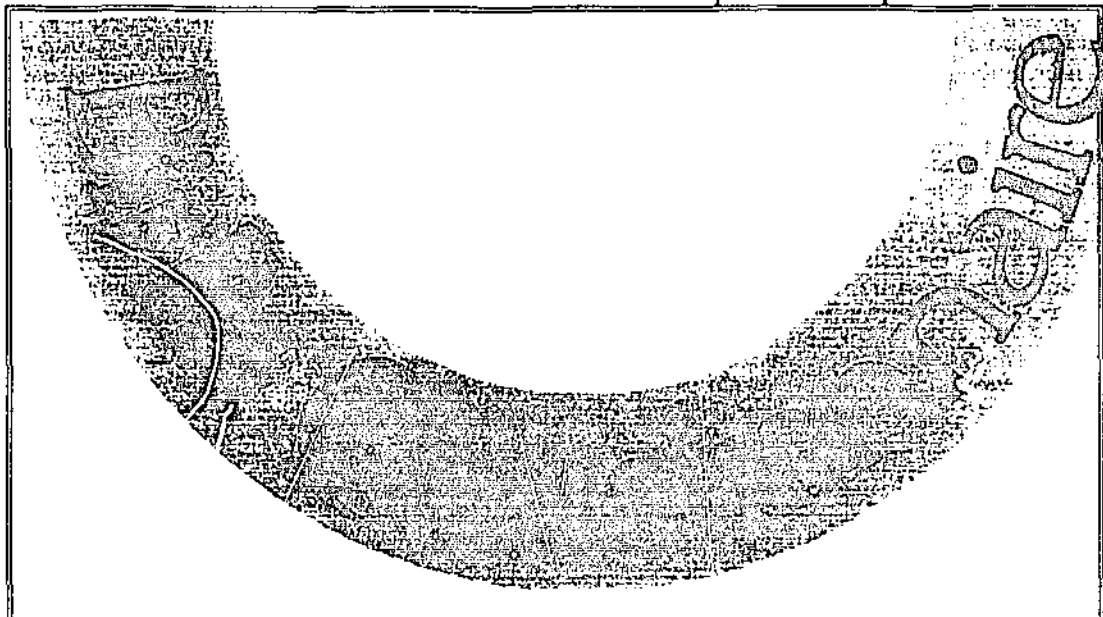
Six items all scored in the same direction on a 7 point Likert Scale (range 7-42) so the higher the score, the more satisfied the women were:

Very Dis-satisfied 1 2 3 4 5 6 7 Very Satisfied

APPENDIX B

MAIN STUDY

Antenatal and Postnatal Questionnaires



Dear Participant

I am an Honours student conducting a study
on labour and delivery experiences for first-time mothers.
The following short questionnaire will ask you for personal
details and what your feelings are about this oncoming event.
A follow up questionnaire asking how your labour and
delivery went will be given to you within six weeks of your
baby's birth. *It is important that you complete the following items
by yourself, so that your answers reflect how you feel.*

Your name and phone number is required as I will need to contact
you after your baby's birth.
The information will be used only in this study.
I can be contacted on: [REDACTED]

With thanks,
Clelia Tedeschi.

I am

Willing to participate in Clelia Tedeschi's study on women's
experiences with childbirth. I am prepared to complete two short
questionnaires. Clelia may keep a record of my name and telephone
number for the purposes of this study. I understand that I have the
right to withdraw from this study at any time, if I so choose.

Name: _____

Phone number _____

Baby's Due Date _____

Please TICK only one BOX for each question.

1. Is this your first pregnancy? Yes ☐ No ☐
2. Has anything in your medical history led to your needing special attention during this pregnancy (eg. diabetes)?
Yes ☐ No ☐ If you answered Yes what is your condition?
-

3. What is your age? _____
4. Your educational qualifications
☐ up to year 10 ☐ completed Yr 12 ☐ Trade or Technical ☐ Tertiary
Other _____
5. Your marital status. ☐ Married ☐ De-facto ☐ Single
6. I have attended all 4 ante-natal classes to date ☐ Yes ☐ No
If no, how many ante-natal classes have you attended? _____
7. Country of birth? _____
8. Besides the hospital staff, who else will be at your labour and delivery?
(tick the boxes that apply)
☐ partner ☐ friend ☐ specialist ☐ own doctor *other*, _____
9. How many books have you read about childbirth?
☐ none ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more _____

10. Attending ante-natal classes has helped me:

Prepare for the labour and delivery I would like to have.	not at all	1	2	3	4	5	very well
Learn about hospital procedures	not at all	1	2	3	4	5	very well
Communicate my needs with hospital staff	not at all	1	2	3	4	5	very well
Decide which medical procedures I will choose.	not at all	1	2	3	4	5	very well

- 11 The pain of childbirth will be: ☐ better than I expect
☐ worse than I expect
☐ no different to what I expect
☐ don't know

Since attending antenatal classes:

- 12 In what ways have your expectations about labour and delivery changed ?
-

- 13 *Circle one number for each statement as it best applies to you.*

I don't expect to have control over what doctors and midwives do to me during labour and delivery.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

14. I want to take part in decisions related to the care I receive during childbirth.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

15. My labour and delivery will be a disappointing experience

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

16. I expect the midwives will be very supportive.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

17. I won't need medical interventions to help me deliver my baby.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

18. I expect my labour and delivery will be a fulfilling experience

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

19. My partner / spouse won't be very supportive

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

20. I will control my pain through breathing and relaxation techniques.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

21. The medical staff won't keep me informed about what happens during labour and delivery

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

22. I expect to keep control of the way I behave during labour and delivery.
Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
23. The medical staff will make the right decisions for me during childbirth.
Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
24. I don't expect to get into comfortable positions during labour and delivery
Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

Thankyou for your participation



Dear New Mum,

Congratulations on the arrival of your child.

The follow-up questionnaire asks about your labour and delivery experience. You will mostly be required to give a number. Some open questions will allow you to further express your views.

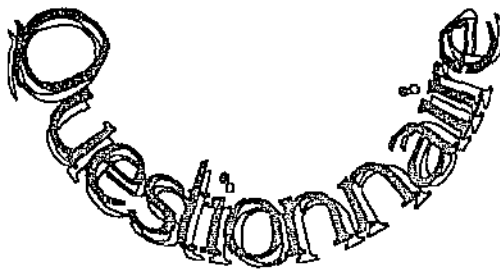
Please indicate if you would like to hear about the results of this study once it is completed.

Yes ☐ No ☐

Thankyou for your participation.

Best regards,
Clelia Tedeschi.

Contact Number: [REDACTED]



Post-natal Questionnaire

Please try to recall your feelings during labour and answer each item as it best describes how you felt at this time. Try to rate each statement independently of how you rated the other statements. *Circle 1 number only for each statement.*

1. I felt confident
Almost always 1 2 3 4 5 6 7 Rarely
2. I felt defeated
Almost always 1 2 3 4 5 6 7 Rarely
3. I felt important
Almost always 1 2 3 4 5 6 7 Rarely
4. I felt tense
Almost always 1 2 3 4 5 6 7 Rarely
5. I had a sense of understanding what was happening
Almost always 1 2 3 4 5 6 7 Rarely
6. I felt insecure
Almost always 1 2 3 4 5 6 7 Rarely
7. I felt relaxed
Almost always 1 2 3 4 5 6 7 Rarely
8. I felt competent
Almost always 1 2 3 4 5 6 7 Rarely
9. I felt inadequate
Almost always 1 2 3 4 5 6 7 Rarely
10. I experienced a sense of distress
Almost always 1 2 3 4 5 6 7 Rarely
11. Everything seemed unclear and unreal
Almost always 1 2 3 4 5 6 7 Rarely
12. I felt panicked
Almost always 1 2 3 4 5 6 7 Rarely

13. I felt like I was falling to pieces
Almost always 1 2 3 4 5 6 7 Rarely
14. I had a feeling of constriction and of being confined
Almost always 1 2 3 4 5 6 7 Rarely
15. I was in control
Almost always 1 2 3 4 5 6 7 Rarely
16. Everything made sense
Almost always 1 2 3 4 5 6 7 Rarely
17. I felt like I was dying
Almost always 1 2 3 4 5 6 7 Rarely
18. I felt I was doing everything I should have been doing
Almost always 1 2 3 4 5 6 7 Rarely
19. I felt helpless
Almost always 1 2 3 4 5 6 7 Rarely
20. Everything seemed peaceful and calm
Almost always 1 2 3 4 5 6 7 Rarely
21. I felt powerless
Almost always 1 2 3 4 5 6 7 Rarely
22. I experienced a sense of failure
Almost always 1 2 3 4 5 6 7 Rarely
23. I was accepting what was happening
Almost always 1 2 3 4 5 6 7 Rarely
24. I felt capable
Almost always 1 2 3 4 5 6 7 Rarely
25. I felt bad about my behaviour during labour
Almost always 1 2 3 4 5 6 7 Rarely

26 **Tick the boxes** to show who was present during your labour and delivery.

☐ partner ☐ midwife ☐ hospital doctor ☐ own doctor *who else?* _____

28. **Circle one number for each statement as it best applies to you.**

I did not have control of what doctors and midwives did to me during my labour and delivery.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

29. I took part in decisions related to the care I received during childbirth.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

30. My labour and delivery was a disappointing experience.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

31. The midwives were very supportive.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

32. I didn't need medical interventions to help me deliver my baby.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

33. My labour and delivery experience was a fulfilling experience.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

34. My partner / spouse was not very supportive

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

35. I did control my pain through breathing and relaxation techniques

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

36. The medical staff did not keep me informed about what happened during labour and delivery

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

37. I kept control of the way I behaved during labour and delivery.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

37a. What made you lose/keep control? _____

38. The medical staff made the right decisions for me during childbirth.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

39. I didn't get into comfortable positions during labour and delivery

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

39a. Why wer/en't you able to get into comfortable positions?

40. *Circle one number for each of the following statements that most clearly indicates your satisfaction with your birth experience.*

How satisfied are you, overall, with your labour and delivery experience?

very dissatisfied 1 2 3 4 5 6 7 very satisfied

41. How satisfied are you with how you coped with the pain of labour and delivery?

very dissatisfied 1 2 3 4 5 6 7 very satisfied

42. How satisfied are you with the amount of control you had over your labour and delivery experience?

very dissatisfied 1 2 3 4 5 6 7 very satisfied

43. How satisfied are you with the amount of help you received from your husband/partner during labour and delivery?

very dissatisfied 1 2 3 4 5 6 7 very satisfied

44. How satisfied are you with the amount of intervention that were done during your labour and delivery?

(intervention refers to use of anesthetics, medical procedures like episiotomy, use of forceps, electronic fetal monitoring, & procedures such as enemas..etc.)

very dissatisfied 1 2 3 4 5 6 7 very satisfied

45. How satisfied are you with the support you received from the nursing staff during your labour and delivery?

46. Looking back over your labour and delivery experiences:

Do you feel you failed to meet your own expectations? ☐ Yes ☐ No

What were these expectation(s)?

47. The pain of childbirth was: ☐ better than I expected
☐ worse than I expected
☐ no different from what I expected

48. How long overall was your labour and delivery?

First stage _____ Second stage _____

49. At the time, did you understand about the procedures being used and why you were having them? ☐ Yes ☐ No

50. Did any midwives discuss your birth experiences with you before you went home? ☐ Yes ☐ No

51. Overall do you feel that you had been given:

- ☐ Too much information
- ☐ Too little information
- ☐ The right amount of information
- ☐ Too much about some things, too little about others

Please add further comments here:

Thankyou for your participation

APPENDIX C

Letters of Permission



THE UNIVERSITY OF MANITOBA

FACULTY OF NURSING

Room 246 Bison Building
Winnipeg, Manitoba
Canada R3T 2N2

Tel.: (204) 474-8202
FAX: (204) 275-5464

September 1, 1993

Clelia Marcinkowski,
[REDACTED]
[REDACTED]
[REDACTED]

Dear Clelia Marcinkowski;

Thank you for your letter of July 4, 1993, requesting further information about my work on women's expectations, perception and satisfaction during childbirth. I am delighted to learn that you plan on doing your research in this area.

Research on the birth experience certainly supports the view that control is one of the key variables associated with satisfaction. My research also provided evidence for the importance of control as a predictor of satisfaction with childbirth. I am enclosing a brief overview from my dissertation, the references from my dissertation, and an article on the development of the Childbirth Expectations Questionnaire (CEQ).

A copy of the CEQ also is enclosed. The CEQ measures women's expectations for the birth experience overall (total score) and was found as well from factor analysis to incorporate 4 subscales (expectations for coping with pain; support from partner/significant other; support from nurses; interventions). You will note that the CEQ is not psychometrically as tight as the Labour Agency Scale, no doubt partly because it is a multidimensional instrument. As well, as you will see from the enclosed article, "The Development of a Scale to measure Childbirth Expectations", some of the items are less adequate than we might wish and may be deleted or revised in future.

Items related to "control" did not emerge as a separate subscale in the current version of the CEQ, therefore, in my dissertation, I used the Labour Agency Scale (LAS) to measure expectations and perception of control. To measure women's perception of childbirth, I used the

- 2 -

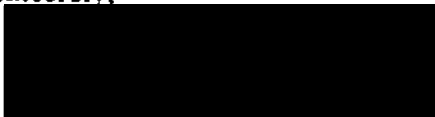
instruments (CEQ, LAS) with items worded in their past tense (see copy of Childbirth Perception Questionnaire (CPQ) enclosed). This permitted calculation of the discrepancy between expectations and perceptions and a direct comparison of scores. Thus I was able to begin to test one of the more common theoretical models (discrepancy model) used to account for satisfaction with childbirth. The literature on consumer satisfaction cited in our article on satisfaction should provide a fairly useful overview of the various theoretical approaches used to date. Please let me know if you are unable to obtain this material.

Because of the limitations of existing scales to measure satisfaction with childbirth, I used a simple and direct measure in which I asked the respondents' to indicate own perception of their level of satisfaction in the areas represented on the subscales of the CEQ and CPQ and the LAS. A copy of this scale also is enclosed. From the article cited in your letter, you will have an overview of some of the inadequacies of satisfaction scales in general. You will have read Shearer's (1987) critique of the LADSI and should consider the comments carefully in selecting your tool. Mary Driedger did a qualitative study in which she interviewed women about their satisfaction with their birth experience. She did not use a quantitative measure of satisfaction because of the limitations identified.

Graduate students in our program have completed other qualitative studies in this field, including studies of the partner or spouse's expectations (Taylor, 1992); expectations and perception of mature primiparas (Gander, 1992); satisfaction with childbirth (Driedger, 1991); expectations and perceptions of women experiencing precipitate delivery (Rippin-Sisler, completing analysis). The study by Cathy Rippin-Sisler may have some interesting findings on perception of control. Cathy will complete her analysis in the next couple of months. A member of our team has used the CEQ with high risk antepartum women (Heaman, 1992).

We are keenly interested in establishing links with colleagues who are doing research in this area. You are welcome to use our instruments in your study. We ask only that we receive information about the results of your study, including any information about the reliability of the instruments with your population. Copies of any reports of articles from the study would be a most welcome. I am delighted that you are doing this research. Please keep in touch. If I can provide any further information I would be pleased to do so. You may find the FAX number useful if you require rapid contact.

Sincerely,



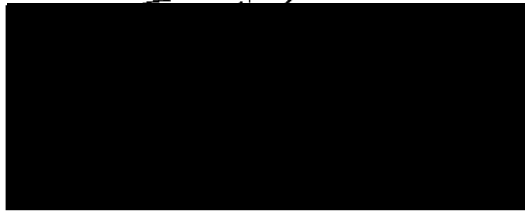
Ina Bramadat, R.N., Ph.D.,
Associate Dean.

Encls.

Perinatal Nursing Research Unit

July 29 '97

To: C. Marinshaw



From: E. Holm, RN PhD

Re: Labour Agency Scale

Enclosed please find a copy of the LAS, with antenatal and postnatal instructions. To score, reverse the scores of positively-worded items and sum.

You have my permission to use the LAS, on condition that you send me a summary of your results when your study is completed.

Best wishes.





College of Health Sciences
Sharron S. Humenick, R.N., Ph.D.

School of Nursing
P.O. Box 3065
Laramie, Wyoming 82071-3065
(307) 766-2319

November 3, 1993

Dear Colleague,

Enclosed you will find reliability information on the four birth scales published in Birth and the Family Journal (Birth) in 1981. Quite a number of researchers have requested permission to use the scales. A high percent of them have been working on a master's thesis. Some of them have sent me details of their results. Some have shared raw data. Some have sent brief abstracts and some have not sent anything.

I have compiled the information I have to date. I plan to send for some of the theses to obtain more data. Thus if you have need of updated information, I may have some in the future.

You are granted permission to use this scale without charge. This is on the assumption that the thrust of your research efforts are to learn how to make birth experiences better. However, you are requested to send your study results to me at the above address. In that way, I can continue to update the reliability and validity information about these scales for the use of other researchers.

Please contact me if I can be of further assistance in your research.

Sincerely,

A black rectangular box redacting the signature of Sharron S. Humenick.

Sharron S. Humenick, R.N., Ph.D.
Professor

APPENDIX D

Fixed Orders of Entry: Regression Tables

Table A1

Research Question One: First Order of Entry: Antenatal Expectation, Postnatal
Evaluation and LAS

Variable	<u>B</u>	<u>SE</u> <u>B</u>	β
Step 1			
Antenatal Expectation	.20	0.07	.29*
Step 2			
Antenatal Expectation	-0.01	0.06	-0.02
Postnatal Evaluation	.39	0.43	.75 **
Step 3			
Antenatal Expectation	-0.05	0.05	-0.07
Postnatal Evaluation	.19	0.05	.37**
LAS	.10	0.02	.54**

Note. $R^2 = 0.08$ for Step 1; $\Delta R^2 = .48$. for Step 2, and $\Delta R^2 = .13$ for Step 3

*($p < .01$), **($p < .001$).

Table A2

Research Question One: Second Order of Entry: Antenatal Expectation, LAS and Postnatal Evaluation

Variable	<u>B</u>	<u>SE</u> <u>B</u>	β
Step 1			
Antenatal Expectation	.19	0.07	.29*
Step 2			
Antenatal Expectation	-0.01	0.05	-0.02
LAS	.14	0.01	.79**
Step 3			
Antenatal Expectation	-0.05	0.05	-0.07
LAS	0.097	0.02	.54**
Postnatal Evaluation	.19	0.05	.37**

Note. $R^2 = 0.08$ for Step 1; $\Delta R^2 = .55$ for Step 2, and $\Delta R^2 = .006$ for Step 3

*($ps < .01$), **($ps < .001$).

Table A3

Research Question Two: First Order of Entry: P-A Discrepancy, Postnatal Evaluation and LAS

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
P-A Discrepancy	.28	0.05	.54**
Step 2			
P-A Discrepancy	0.01	0.06	0.02
Postnatal Evaluation	.38	0.05	.73 **
Step 3			
P-A Discrepancy	0.05	0.05	0.09
Postnatal Evaluation	.15	0.06	.28 *
LAS	.097	.017	.54**

Note. $R^2=.29$ for Step 1; $\Delta R^2=.27$. for Step 2, and $\Delta R^2=.13$ for Step 3

(* $p<.05$ ** $p<.001$).

Table A4

Research Question Two: Second Order of Entry: Postnatal Evaluation, P-ADiscrepancy and LAS

Variable	<u>B</u>	<u>SE</u> <u>B</u>	β
Step 1			
Postnatal Evaluation	.39	0.04	.75**
Step 2			
Postnatal Evaluation	.38	0.05	.73**
P-A Discrepancy	0.01	0.06	0.02
Step 3			
Postnatal Evaluation	.15	0.06	2.8*
P-A Discrepancy	0.05	0.05	0.09
LAS	.097	0.02	.54**

Note. $\underline{R}^2 = .56$ for Step 1; $\Delta \underline{R}^2 = 0.$ for Step 2, and $\Delta \underline{R}^2 = .13$ for Step 3

(* $p < .05$ ** $p < .001$).

APPENDIX E

Qualitative Data: Women's Expectations

Postnatal Question No: 46:

Looking back over your labour and delivery experiences:

Do you feel you failed to meet your own expectations? ☐ Yes ☐ No

Yes failed to meet expectations, were worse than expected.

1. Not good with pain. I wanted an epidural. I was frightened.
2. Expected to accept the pain better. I did not want an epidural but I couldn't stand the pain.
3. More natural ...I wanted to be part of it, not drugged and falling asleep.
4. I thought I could handle the pain better through breathing but I didn't.
Thought control self/ co-operate but didn't feel I was. Antenatal classes drum in "You cope by breathing. NO way I could cope. Had Pethidine & wanted more. Felt like I wanted to be knocked out. Felt it was a bit misleading. Feel now I would have liked to be connected - my body felt separate to my mind.
5. Wasn't going to take painkillers but I did.
6. Thought would be quick, easy, painless labour. I could control pain-have high threshold but 28 hr labour.
7. Never thought I couldn't cope with pain....had as many drugs as did.
8. Knew it would be painful and it was. Long labours usual for my family.
9. To be not as long. Had all things didn't want (e.g.,episiotomy, pain relief).
10. Planned. Start at home - stay as long as I could. Go to hospital.
Pethidine/gas. Go home. Too tired = vacuum. In hospital 2 days prior - couldn't sleep. Went in Sunday, induced Tues. Second stage, 9 hrs long. Had episiotomy for vacuum. You can't prepare for what you don't know. It happened so quick. Lost control like a 5 yr old, not knowing what to do next. Control my way - not in control - the inductions - they were controlling me with a pump. Not enough information. Not 100% certain- control lost in their uncertainty about water breaking so induced. Plastic vacuum didn't work so they used a metal one.

11. Taken out of my control - induced due to diabetes. Pleased waters broke by themselves. Hadn't dilated so epidural. Didn't expect it to go as did. Outcome didn't bother me.
12. Expected rough time but not as rough as I got. To cope better.
13. Being upright- pain overwhelming. Good classes, plenty of information, not new to me - my fault for reading so much. Wonderful to know why I was in pain and the options available. Regret asking for an epidural.

No, did not fail to meet expectations: Was better than expected.

1. I think I did a pretty good job. Didn't panic. I was induced. Once it got going, handled it pretty well.
2. Expected it to hurt more than it did.
3. Would be harder, longer, more painful. I went in expecting the worse. Major fear- having an epidural. Decided that I didn't want one. Had pethidine before-knew what I was getting.
4. Knew it would be painful. Everything I imagined it to be. End result was satisfying.
5. Lot of pain - there was.
6. No prior concern. Not a stressed out person. Quite calm. Handled it using the contractions to its advantage. All things taught-not able to do.
7. Expected it to be worse than it was- really bad and it wasn't that bad.
8. Apart from pethidine, wanted 'natural' birth but didn't quite have it. Thought it would be worse than it was.
9. Thought it was worse than it was- found it was easier.
10. Contractions for 10 hrs - 1 min apart. Had to be induced-complications during pregnancy. Never put expectations on my self- played it by ear. If needed pain relief, take it, felt OK about it. Let me know along- supportive comments from Dr. "Doing a good job". Enjoyed it, can't describe.

11. Didn't know. Women at work told lots of old wives tales. "You'll be screaming for an epidural." No questions. Be positive. Body natural to do it. Better than thought it would be. Enjoyed it and I did.
12. Open minded - didn't have expectations
13. To enjoy it - satisfied to do it by myself. (Birth took 37 mins total). Overwhelming. Unprepared for quickness. Husband not there for most of it.
14. To do it without pain relief & not make too much noise. Handled contractions
15. Better than I thought- only at the end. Should have explained that when head comes out have to pass your level of tolerance - after that OK. Teach you to push past that pain.
16. Didn't set self up with expectations- why set self up to fail- roll with the punches.
17. To be bad- wasn't so bad.
18. Expected pain to be worse than it was. Terrified of going into labour- not as anticipated. Fear of the unknown. Hear the bad stories.
19. Pain wasn't what I imagined it would be. Birth was wonderful.
20. Expectations same as what happened to me. Didn't expect to have epidural and had it. Disappointing as didn't need it- baby born before it had an effect- 20 mins. I could have coped- was told birth would take up to 4 hrs.
21. To birth naturally- open minded. Easy birth runs in the family.

APPENDIX F

Statistical Analyses

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Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	
4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	
O	N	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	
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Q28 -14	Q29 -15	Q30 -16	Q31 -17	Q32 -18	Q33 -19	Q34 -20	Q35 -21	Q36 -22	Q37 -23	Q38 -24	Q39 -25	TOT DIFF	DR UGS	INTS	SEV ERE3	DR UGS2	DRUGS 6INT
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Q28	Q29	Q30	Q31	Q32	Q33	Q34	Q35	Q36	Q37	Q38	Q39	TOT	DR	SEV	DR	DRUGS	
-14	-15	-16	-17	-18	-19	-20	-21	-22	-23	-24	-25	DIFF	UGS	INTS	ERE3	UGS2	4INT
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Number of cases read: 80 Number of cases listed: 80

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0	0	0	0	1	0	0	0	0	2	0	-3	0
-1	-1	0	-1	2	0	1	2	-1	1	-1	1	2
5	-5	0	0	6	0	0	-3	0	-1	1	0	3
3	0	0	0	1	-1	0	2	-2	-1	3	-2	3
3	2	-2	0	0	4	4	-1	0	0	1	0	11
-1	0	0	0	-3	-2	6	1	0	-4	3	-6	-6
-2	2	0	1	-2	5	6	1	2	1	3	0	17
1	-2	-1	0	-1	-6	0	-6	2	1	2	1	-9
4	-6	-3	0	6	0	0	1	0	6	0	3	11
0	0	0	0	-3	0	0	0	0	2	0	0	-1
3	-2	0	5	-2	0	0	-3	0	0	-1	1	1
-1	0	0	0	3	3	0	1	0	3	1	0	10
1	0	0	-1	6	0	0	-2	-1	0	2	3	8
-4	-2	1	1	0	5	0	1	1	1	-3	0	1
-5	-5	-3	0	-3	-2	0	-1	-1	1	0	-2	-21
1	0	0	0	3	0	0	-3	0	-1	1	3	4

Number of cases read: 22 Number of cases listed: 22

B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20
5	5	5	5	5	5	1	5	5	1	5	5	3	5	5	5	5	5	5	3
5	5	5	5	5	5	5	5	5	1	5	5	5	5	5	4	5	4	2	1
4	5	4	2	5	4	3	5	1	1	1	4	3	3	4	2	5	1	1	1
5	5	2	1	5	5	5	3	5	5	4	5	1	4	4	4	5	3	1	1
5	5	5	1	3	1	5	5	5	5	1	1	1	2	1	1	3	1	1	1
5	5	2	4	5	5	5	5	5	5	3	5	4	2	5	5	2	3	3	3
5	5	4	5	5	5	5	5	5	5	1	5	5	5	5	5	5	3	5	5
5	5	5	3	4	5	4	5	5	3	2	4	4	5	3	4	5	3	5	1
5	5	5	1	5	3	1	5	1	5	5	3	5	5	3	5	5	3	1	5
3	4	2	4	3	5	5	5	3	5	3	3	4	3	4	1	3	2	3	1
5	5	5	1	3	5	5	5	3	5	5	3	5	3	2	1	5	1	1	1
5	5	5	1	3	5	5	5	1	5	3	1	5	4	5	5	5	1	1	5
5	5	5	3	4	5	4	5	5	3	3	5	5	2	4	3	5	1	2	1
5	5	5	3	3	5	5	5	5	5	3	5	1	5	5	2	5	1	3	2
5	5	5	5	5	5	5	5	2	5	5	1	4	5	1	5	5	1	5	5
5	5	5	5	5	5	5	5	5	5	5	5	5	5	3	5	5	3	5	5
5	5	4	3	2	5	5	5	1	5	4	1	5	5	2	4	4	2	5	2
5	5	5	1	5	5	5	5	5	5	5	2	5	5	5	5	5	2	3	3
5	5	5	2	5	5	4	4	5	5	5	1	4	5	2	5	5	3	3	2
5	5	5	2	4	5	5	5	3	5	5	1	1	1	3	4	5	1	1	3
5	5	5	1	3	5	5	3	2	5	5	1	2	2	2	1	5	1	1	1
5	5	4	4	4	5	5	4	5	4	2	3	5	5	4	2	5	1	2	1

B21 B22 B23 B24 B25 B26 B27 B28 B29 B30 B31 B32 B33 B34 B35 B36 BTOT

3	5	5	5	4	5	5	5	3	5	5	1	5	5	5	5	159
5	5	5	5	5	3	5	5	5	2	5	5	4	5	5	5	161
3	2	2	4	3	1	5	2	3	1	4	4	1	1	1	5	101
5	5	5	3	5	3	4	3	5	5	5	5	1	4	4	5	141
2	1	1	3	5	1	5	1	1	5	1	1	1	1	5	5	92
3	4	4	5	5	2	5	5	5	1	2	4	2	2	5	5	142
5	5	5	5	5	5	5	5	5	5	5	5	3	1	5	5	167
5	4	3	5	4	3	4	5	5	3	4	3	4	5	4	5	146
5	5	2	5	5	4	4	5	4	1	5	4	5	3	5	5	143
4	2	2	5	1	3	3	3	2	3	2	3	1	3	3	4	110

3	1	1	5	1	1	5	4	5	1	5	3	1	3	2	1	111
4	5	3	5	2	1	5	1	5	3	1	5	1	5	3	5	129
5	5	3	5	3	2	5	4	3	4	3	2	2	2	5	5	133
5	5	2	5	3	1	5	5	5	3	5	5	1	5	5	5	143
1	1	5	5	2	3	5	5	5	1	5	5	4	1	5	5	142
5	2	5	5	5	3	5	5	5	3	5	5	5	5	5	5	169
2	2	3	5	5	2	4	5	5	1	3	3	2	3	4	2	125
1	4	2	5	3	4	5	5	5	2	5	5	1	3	5	5	146
1	3	5	5	5	3	5	5	5	3	5	5	1	3	5	5	144
3	1	3	5	3	1	5	5	5	1	5	5	1	1	4	4	121
3	3	1	5	1	2	5	4	3	2	1	3	1	2	5	5	106
1	4	4	5	5	2	5	4	4	2	4	4	2	4	5	4	134

Number of cases read: 22 Number of cases listed: 22

- - - - - Kolmogorov - Smirnov Goodness of Fit Test

SATOTAL Total Satisfaction score

Test distribution - Normal Mean: 34.99
Standard Deviation: 5.83

Cases: 80

Most extreme differences				
Absolute	Positive	Negative	K-S Z	2-Tailed P
.11452	.11452	-.11003	1.0243	.2449

- - - - - Kolmogorov - Smirnov Goodness of Fit Test

TOTDIFF Post-Ante

Test distribution - Normal Mean: -1.90
Standard Deviation: 10.98

Cases: 80

Most extreme differences				
Absolute	Positive	Negative	K-S Z	2-Tailed P
.12137	.07104	-.12137	1.0855	.1893

- - - - - Kolmogorov - Smirnov Goodness of Fit Test

DRUGSINT all drugs & all ints

Test distribution - Normal Mean: 3.88
Standard Deviation: 1.65

Cases: 80

Most extreme differences				
Absolute	Positive	Negative	K-S Z	2-Tailed P
.12749	.12719	-.12749	1.1403	.1484

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	Q1LASRC	4.7500	1.8453	80.0
2.	Q2LAS	5.7000	1.7959	80.0
3.	Q3LASRC	5.5375	1.8890	80.0
4.	Q4LAS	3.7250	2.0926	80.0
5.	Q5LASRC	5.5250	1.7061	80.0
6.	Q6LAS	5.4125	1.9139	80.0
7.	Q7LASRC	3.8875	1.9745	80.0
8.	Q8LASRC	4.3250	1.8878	80.0
9.	Q9LAS	5.7125	1.6928	80.0
10.	Q10LAS	4.4250	2.1861	80.0
11.	Q11LAS	5.1250	2.1896	80.0
12.	Q12LAS	5.4000	1.9848	80.0
13.	Q13LAS	5.5000	2.1347	80.0
14.	Q14LAS	5.8875	1.7789	80.0
15.	Q15LASRC	4.5500	2.1752	80.0
16.	Q16LASRC	5.2000	1.7386	80.0
17.	Q17LAS	5.2250	2.2331	80.0
18.	Q18LASRC	5.5250	1.6457	80.0
19.	Q19LAS	4.9625	2.0091	80.0
20.	Q20LASRC	3.4750	2.1988	80.0
21.	Q21LAS	4.7500	2.0898	80.0
22.	Q22LAS	5.9375	1.8235	80.0
23.	Q23LASRC	6.0500	1.3770	80.0
24.	Q24LASRC	5.1625	1.9516	80.0
25.	Q25LAS	6.0625	1.7742	80.0

Correlation Matrix

	Q1LASRC	Q2LAS	Q3LASRC	Q4LAS	Q5LASRC
Q1LASRC	1.0000				
Q2LAS	.5920	1.0000			
Q3LASRC	.3005	.0481	1.0000		
Q4LAS	.2803	.2708	.2108	1.0000	
Q5LASRC	.5006	.2462	.3198	.1828	1.0000
Q6LAS	.5206	.4342	.3440	.3858	.4135
Q7LASRC	.6453	.4616	.2201	.5163	.5326
Q8LASRC	.5578	.4883	.2876	.4875	.4887
Q9LAS	.4711	.4751	.2033	.4098	.4255
Q10LAS	.3813	.4037	.1494	.4188	.3569
Q11LAS	.4809	.5344	.2988	.3861	.6023
Q12LAS	.3629	.3892	.0500	.4596	.2923
Q13LAS	.5013	.4755	.0644	.4704	.3649
Q14LAS	.2883	.2984	-.0194	.3350	.1615
Q15LASRC	.6023	.5223	.1674	.3006	.4021
Q16LASRC	.4735	.2668	.2598	.1719	.6256
Q17LAS	.4592	.4526	.0580	.3412	.3474
Q18LASRC	.4356	.1996	.2053	.0755	.5769
Q19LAS	.5335	.5055	.2622	.4943	.5524
Q20LASRC	.4602	.3891	.1633	.3121	.4658
Q21LAS	.3873	.4520	.0088	.4588	.3497
Q22LAS	.5220	.4696	.0034	.3106	.4094
Q23LASRC	.4683	.3593	.3934	.2552	.4628
Q24LASRC	.6441	.6967	.2095	.4171	.4835
Q25LAS	.4340	.2920	.1371	.2024	.3905

RELIABILITY ANALYSIS - SCALE (ALPHA)

Correlation Matrix

	Q6LAS	Q7LAS	Q8LAS	Q9LAS	Q10LAS
Q6LAS	1.0000				
Q7LASRC	.4713	1.0000			
Q8LASRC	.4109	.6619	1.0000		
Q9LAS	.5332	.4522	.4772	1.0000	
Q10LAS	.4325	.3602	.4569	.5123	1.0000
Q11LAS	.5161	.5069	.5933	.5187	.5785
Q12LAS	.3692	.3088	.5122	.5207	.5642
Q13LAS	.4446	.5120	.5434	.5167	.6130
Q14LAS	.2443	.2306	.3842	.3674	.4584
Q15LASRC	.5225	.5775	.5786	.5110	.6104
Q16LASRC	.3629	.4971	.4890	.3510	.4203
Q17LAS	.3453	.4020	.5259	.4258	.5999
Q18LASRC	.2921	.4469	.4618	.3911	.2890
Q19LAS	.5670	.6467	.5806	.4992	.5714
Q20LASRC	.4070	.5956	.5173	.3126	.4815
Q21LAS	.4280	.4533	.4765	.5197	.6608
Q22LAS	.5116	.3320	.4583	.6543	.5783
Q23LASRC	.4772	.4956	.6072	.5058	.3755
Q24LASRC	.5173	.5600	.7139	.6120	.5444
Q25LAS	.3315	.4429	.3793	.4823	.3423
	Q11LAS	Q12LAS	Q13LAS	Q14LAS	Q15LASRC
Q11LAS	1.0000				
Q12LAS	.5447	1.0000			
Q13LAS	.5958	.6901	1.0000		
Q14LAS	.3384	.6152	.4617	1.0000	
Q15LASRC	.5276	.4263	.5861	.2943	1.0000
Q16LASRC	.4655	.2920	.2456	.3021	.5864
Q17LAS	.5689	.5649	.5736	.4812	.4459
Q18LASRC	.3504	.2876	.3675	.0983	.6468
Q19LAS	.5622	.4736	.5445	.2361	.5638
Q20LASRC	.4897	.3069	.4908	.2242	.5984
Q21LAS	.4551	.5188	.5675	.3056	.5709
Q22LAS	.4395	.4862	.4861	.4388	.5289
Q23LASRC	.4849	.3770	.4521	.2142	.5105
Q24LASRC	.6558	.5712	.6426	.4575	.6227
Q25LAS	.4639	.3810	.4662	.2750	.4075
	Q16LASRC	Q17LAS	Q18LASRC	Q19LAS	Q20LASRC
Q16LASRC	1.0000				
Q17LAS	.4023	1.0000			
Q18LASRC	.5822	.2706	1.0000		
Q19LAS	.3972	.5549	.4310	1.0000	
Q20LASRC	.4218	.4446	.4549	.5485	1.0000
Q21LAS	.3379	.5493	.2300	.6279	.5027
Q22LAS	.3354	.4325	.2768	.4900	.3706
Q23LASRC	.4452	.3627	.5692	.4536	.4143
Q24LASRC	.4492	.5695	.4145	.5117	.4744
Q25LAS	.4555	.4692	.4785	.4090	.2616
	Q21LAS	Q22LAS	Q23LASRC	Q24LASRC	Q25LAS
Q21LAS	1.0000				
Q22LAS	.6170	1.0000			
Q23LASRC	.3079	.4398	1.0000		
Q24LASRC	.5998	.5969	.5951	1.0000	
Q25LAS	.3627	.3964	.4857	.4540	1.0000

Statistics for	Mean	Variance	Std Dev	N of Variables
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Scale	127.0125	1059.7745	32.5542	25		
Item Means	Mean	Minimum	Maximum	Range	Max/Min	Variance
	5.1125	3.4750	6.0625	2.5875	1.7446	.5182
Inter-item						
Correlations	Mean	Minimum	Maximum	Range	Max/Min	Variance
	.4310	-.0194	.7139	.7333	-36.7071	.0185
Item-total Statistics						
	Scale	Scale	Corrected	Squared	Alpha	
	Mean	Variance	Item-	Multiple	if Item	
	if Item	if Item	Total	Correlation	Deleted	
	Deleted	Deleted	Correlation	Correlation	Deleted	
Q1LASRC	123.0625	976.0087	.6970	.6931	.9471	
Q2LAS	122.1125	988.3290	.6042	.6772	.9481	
Q3LASRC	122.2750	1024.7569	.2600	.4268	.9518	
Q4LAS	124.0875	988.7391	.5065	.5519	.9493	
Q5LASRC	122.2875	991.4986	.6084	.7589	.9481	
Q6LAS	122.4000	980.1671	.6337	.5442	.9478	
Q7LASRC	123.9250	969.6652	.7011	.7636	.9470	
Q8LASRC	123.4875	967.6960	.7536	.7054	.9464	
Q9LAS	122.1000	983.8380	.6881	.6190	.9473	
Q10LAS	123.3875	960.2150	.6996	.6885	.9470	
Q11LAS	122.6875	954.3188	.7441	.7250	.9464	
Q12LAS	122.4125	975.8150	.6453	.6897	.9476	
Q13LAS	122.3125	958.5467	.7313	.7270	.9466	
Q14LAS	121.9250	1004.2728	.4642	.5513	.9495	
Q15LASRC	123.2625	954.0441	.7516	.8110	.9463	
Q16LASRC	122.6125	992.3669	.5878	.6901	.9483	
Q17LAS	122.5875	962.8277	.6636	.6181	.9475	
Q18LASRC	122.2875	1001.3973	.5345	.7540	.9488	
Q19LAS	122.8500	962.1291	.7510	.7516	.9464	
Q20LASRC	124.3375	969.1378	.6267	.5631	.9479	
Q21LAS	123.0625	967.7049	.6746	.7262	.9473	
Q22LAS	121.8750	981.1487	.6592	.6895	.9475	
Q23LASRC	121.7625	1001.7783	.6436	.6191	.9480	
Q24LASRC	122.6500	958.0532	.8104	.8082	.9457	
Q25LAS	121.7500	993.9367	.5604	.5422	.9485	

Analysis of Variance						
Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.	
Between People	3348.8875	79	42.3910			
Within People	5038.8000	1920	2.6244			
Between Measures	994.9000	24	41.4542	19.4360	.0000	
Residual	4043.9000	1896	2.1329			
Nonadditivity	35.8755	1	35.8755	16.9620	.0000	
Balance	4008.0245	1895	2.1151			
Total	8387.6875	1999	4.1959			
Grand Mean	5.1125					

Tukey estimate of power to which observations
must be raised to achieve additivity = 1.7503

Alpha = .9497 Standardized item alpha = .9498

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	Q14CONTR	5.5125	1.7574	80.0
2.	Q15DEC_R	6.4250	1.0998	80.0
3.	Q16DISAP	6.0875	1.3613	80.0

4.	Q17MID_R	6.6250	1.0110	80.0
5.	Q18MED_R	3.2875	1.5027	80.0
6.	Q19FUL_R	5.5625	1.5819	80.0
7.	Q20PART	6.0250	1.7645	80.0
8.	Q21PAI_R	4.9875	1.5467	80.0
9.	Q22INFOR	6.1625	1.4182	80.0
10.	Q23CON_R	4.5250	1.7282	80.0
11.	Q24DEC_R	5.4375	1.6600	80.0
12.	Q25POSIT	5.1250	1.6792	80.0

Correlation Matrix

	Q14CONTR	Q15DEC_R	Q16DISAP	Q17MID_R	Q18MED_R
Q14CONTR	1.0000				
Q15DEC_R	.3771	1.0000			
Q16DISAP	.2244	.2201	1.0000		
Q17MID_R	.1452	-.0028	.0057	1.0000	
Q18MED_R	.2934	.1243	.0309	.0219	1.0000
Q19FUL_R	.0544	.2392	.2179	.1652	.1548
Q20PART	.0815	.4446	.1203	-.0373	-.2033
Q21PAI_R	.3051	.2190	.0907	-.1164	.1595
Q22INFOR	.2201	.0688	.3007	.2637	-.1113
Q23CON_R	.2771	.0876	.0448	-.0163	.2238
Q24DEC_R	-.0041	.1603	.2125	.0160	.1418
Q25POSIT	.3040	.2176	.3219	.0429	-.0395
	Q19FUL_R	Q20PART	Q21PAI_R	Q22INFOR	Q23CON_R
Q19FUL_R	1.0000				
Q20PART	.1536	1.0000			
Q21PAI_R	.2616	.2691	1.0000		
Q22INFOR	.1675	.3170	.2549	1.0000	
Q23CON_R	.1082	.0787	.4192	.0784	1.0000
Q24DEC_R	.0545	.1129	.0958	.0286	-.1429
Q25POSIT	.0828	.3151	.3759	.2997	.1952
	Q24DEC_R	Q25POSIT			
Q24DEC_R	1.0000				
Q25POSIT	-.0290	1.0000			

Statistics for Scale	Mean	Variance	Std Dev	N of Variables		
	65.7625	72.5378	8.5169	12		
Item Means	Mean	Minimum	Maximum	Range	Max/Min	Variance
	5.4802	3.2875	6.6250	3.3375	2.0152	.8576
Inter-item Correlations	Mean	Minimum	Maximum	Range	Max/Min	Variance
	.1449	-.2033	.4446	.6478	-2.1871	.0194

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Q14CONTR	60.2500	57.8354	.4345	.3755	.6260
Q15DEC_R	59.3375	63.5682	.4425	.3930	.6362

Q16DISAP	59.6750	63.1082	.3503	.2870	.6440
Q17MID_R	59.1375	69.9935	.0900	.1961	.6758
Q18MED_R	62.4750	66.5310	.1529	.2559	.6742
Q19FUL_R	60.2000	62.4911	.3017	.2243	.6510
Q20PART	59.7375	60.9049	.3094	.4006	.6503
Q21PAI_R	60.7750	58.4297	.4955	.4213	.6177
Q22INFOR	59.6000	62.3696	.3642	.3337	.6414
Q23CON_R	61.2375	62.2087	.2693	.2606	.6575
Q24DEC_R	60.3250	66.9057	.1059	.1714	.6848
Q25POSIT	60.6375	59.0441	.4136	.3194	.6307

Analysis of Variance

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob
Between People	477.5406	79	6.0448		
Within People	2490.0833	880	2.8296		
Between Measures	754.6615	11	68.6056	34.3538	.0000
Residual	1735.4219	869	1.9970		
Nonadditivity	1.2657	1	1.2657	.6335	.4263
Balance	1734.1562	868	1.9979		
Total	2967.6240	959	3.0945		
Grand Mean	5.4802				

RELIABILITY ANALYSIS - SCALE (ALPHA)

Tukey estimate of power to which observations
must be raised to achieve additivity = 1.3182

Reliability Coefficients 12 items

Alpha = .6696 Standardized item alpha = .6704

RELIABILITY ANALYSIS - SCALE (ALPHA)

	Mean	Std Dev	Cases
1. CONTRL	5.1750	1.9472	80.0
2. DECIS2RC	5.6250	1.7529	80.0
3. DISPTEXP	5.4000	2.1085	80.0
4. MIDWIFRC	6.7125	.8743	80.0
5. NOINTVNR	2.8500	2.2731	80.0
6. FULFILRC	5.4125	2.0543	80.0
7. PARTNER	6.6875	1.0977	80.0
8. BREATHRC	4.2750	2.1815	80.0
9. MEDINFO	6.0750	1.4211	80.0
10. SCONTRC	4.9125	2.0879	80.0
11. MEDECSRC	5.9625	1.4271	80.0
12. COMFPOSN	4.7750	2.0744	80.0

Correlation Matrix

	CONTRL	DECIS2RC	DISPTEXP	MIDWIFRC	NOINTVNR
CONTRL	1.0000				
DECIS2RC	.2605	1.0000			
DISPTEXP	.3157	.3082	1.0000		
MIDWIFRC	.1415	.0196	.2692	1.0000	
NOINTVNR	.1461	.0143	.2662	-.1876	1.0000
FULFILRC	.4690	.1208	.5225	.1796	.2926
PARTNER	.0022	.0107	.1149	.1162	.0824
BREATHRC	.1494	.0240	.3528	.0884	.2662
MEDINFO	.3383	.2452	.3236	.4353	.0035

SCONTRC	.2218	.0497	.1576	-.0140	.3146
MEDECSRC	.2210	.0044	.4678	.1840	.1387
COMFPOSN	.1916	.1088	.3334	.2849	-.0368

	FULFILRC	PARTNER	BREATHRC	MEDINFO	SCONTRC
FULFILRC	1.0000				
PARTNER	.3442	1.0000			
BREATHRC	.4009	.3059	1.0000		
MEDINFO	.4055	.3966	.0994	1.0000	
SCONTRC	.3627	.2199	.4806	.1217	1.0000
MEDECSRC	.1781	.0086	.0278	.2136	-.1031
COMFPOSN	.1528	.1244	.0278	.2162	.1532

	MEDECSRC	COMFPOSN
MEDECSRC	1.0000	
COMFPOSN	.2922	1.0000

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Statistics for Scale	Mean 63.8625	Variance 124.9555	Std Dev 11.1784	Variables 12		
Item Means	Mean 5.3219	Minimum 2.8500	Maximum 6.7125	Range 3.8625	Max/Min 2.3553	Variance 1.1434
Inter-item Correlations	Mean .1952	Minimum -.1876	Maximum .5225	Range .7101	Max/Min -2.7857	Variance .0233

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
CONTRL	58.6875	103.5340	.4449	.3518	.7138
DECIS2RC	58.2375	114.1581	.2062	.2278	.7428
DISPTXP	58.4625	94.7328	.6280	.5703	.6855
MIDWIFRC	57.1500	119.6734	.2362	.3126	.7380
NOINTVNR	61.0125	107.2277	.2668	.2529	.7412
FULFILRC	58.4500	95.2380	.6359	.5302	.6851
PARTNER	57.1750	116.6778	.2983	.3288	.7329
BREATHRC	59.5875	102.0429	.4119	.3972	.7186
MEDINFO	57.7875	109.7138	.4441	.4539	.7178
SCONTRC	58.9500	104.1747	.3853	.3721	.7221
MEDECSRC	57.9000	114.2684	.2835	.3393	.7332
COMFPOSN	59.0875	108.2581	.2871	.2477	.7358

Analysis of Variance

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	822.6240	79	10.4130		
Within People	3354.9167	880	3.8124		
Between Measures	1006.1531	11	91.4685	33.8417	.0000
Residual	2348.7635	869	2.7028		
Nonadditivity	43.0727	1	43.0727	16.2152	.0001
Balance	2305.6908	868	2.6563		

Total	4177.5406	959	4.3561
Grand Mean	5.3219		

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Tukey estimate of power to which observations
must be raised to achieve additivity = 2.1895

Reliability Coefficients 12 items

Alpha = .7404 Standardized item alpha = .7418

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Number of valid observations (listwise) = 80.00

Variable	Mean	Std Dev	Minimum	Maximum	Valid N	Label
SATOTAL	34.99	5.83	14	42	80	Total Satisfaction score

		Mean	Std Dev	Cases
1.	ALLSATS	5.5250	1.9224	80.0
2.	SATSPAIN	5.2125	1.9467	80.0
3.	SATSCONT	5.0125	1.8859	80.0
4.	SATSPART	6.5750	.9383	80.0
5.	SATSINTV	5.7000	1.6794	80.0
6.	SATSTAFF	6.6375	.9579	80.0

Correlation Matrix

	ALLSATS	SATSPAIN	SATSCONT	SATSPART	SATSINTV
ALLSATS	1.0000				
SATSPAIN	.4061	1.0000			
SATSCONT	.5603	.6061	1.0000		
SATSPART	.0691	.3065	.3035	1.0000	
SATSINTV	.3513	.2792	.2650	.0466	1.0000
SATSTAFF	.3590	.2862	.2408	.1503	.4745

N of Cases = 80.0

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
ALLSATS	29.1375	25.9935	.5582	.3981	.6746
SATSPAIN	29.4500	25.3392	.5869	.4103	.6644
SATSCONT	29.6500	24.9392	.6442	.5091	.6434
SATSPART	28.0875	36.0910	.2509	.1480	.7492
SATSINTV	28.9625	30.3657	.4023	.2750	.7214
SATSTAFF	28.0250	34.6576	.4483	.2882	.7183

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Analysis of Variance

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	534.9812	79	6.7719		
Within People	890.1667	400	2.2254		
Between Measures	187.9854	5	37.5971	21.1496	.0000
Residual	702.1812	395	1.7777		
Nonadditivity	95.6602	1	95.6602	62.1415	.0000
Balance	606.5211	394	1.5394		
Total	1425.1479	479	2.9753		
Grand Mean	5.7771				

Tukey estimate of power to which observations

must be raised to achieve additivity = 4.9036

Reliability Coefficients 6 items

Alpha = .7375 Standardized item alpha = .7327

RELIABILITY ANALYSIS - SCALE (ALPHA)

N of Cases = 22.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	134.7727	447.6126	21.1569	36

Item Means	Mean	Minimum	Maximum	Range	Max/Min	Variance
	3.7437	2.0455	4.9545	2.9091	2.4222	.6912

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
B1	129.9091	439.8961	.3823	.	.8868
B2	129.8182	445.2987	.2521	.	.8881
B3	130.3636	444.3377	.0487	.	.8902
B4	131.9545	410.2359	.5400	.	.8823
B5	130.6364	422.9091	.5825	.	.8829
B6	130.0909	430.5628	.4117	.	.8853
B7	130.3636	456.8139	-.2048	.	.8949
B8	129.9545	443.1883	.1978	.	.8879
B9	131.1364	417.8377	.4014	.	.8854
B10	130.5455	457.7835	-.1982	.	.8965
B11	131.0000	430.5714	.2293	.	.8888
B12	131.7727	413.3268	.4762	.	.8837
B13	130.8182	421.5844	.3976	.	.8853
B14	130.9091	410.3723	.5948	.	.8813
B15	131.4091	425.2056	.3651	.	.8858
B16	131.2273	398.4697	.7316	.	.8779
B17	130.0000	434.1905	.5116	.	.8853
B18	132.7273	414.4935	.6639	.	.8809
B19	132.0909	408.0866	.5543	.	.8819
B20	132.3636	415.0043	.4533	.	.8842
B21	131.4091	429.2056	.2537	.	.8883
B22	131.4091	411.5866	.5192	.	.8827
B23	131.5455	401.4978	.7418	.	.8782
B24	130.0000	437.8095	.3682	.	.8864
B25	131.1364	418.5043	.4385	.	.8844
B26	132.2727	412.1126	.6612	.	.8806
B27	130.0455	444.7121	.1119	.	.8885
B28	130.6364	412.4329	.6237	.	.8811
B29	130.5455	418.7359	.5625	.	.8825
B30	132.1818	435.7749	.1578	.	.8900
B31	130.9091	411.0390	.5554	.	.8820
B32	130.9091	425.5152	.3738	.	.8856
B33	132.5455	406.1645	.6291	.	.8804
B34	131.7273	418.7792	.4241	.	.8848
B35	130.4545	422.8312	.5062	.	.8836
B36	130.2273	433.1364	.3037	.	.8867

Reliability Coefficients 36 items

Alpha = .8880 Standardized item alpha = .8909

- - Correlation Coefficients -

TOTALLAS ANTE_EXP POSTEVAL SATOTAL TOTDIFF DRUGSINT

TOTALLAS	1.0000 (80) P= .	.3807 (80) P= .000	.7443 (80) P= .000	.7937 (80) P= .000	.4625 (80) P= .000	-.2191 (80) P= .051
ANTE_EXP	.3807 (80) P= .000	1.0000 (80) P= .	.4045 (80) P= .000	.2888 (80) P= .009	-.3640 (80) P= .001	-.0878 (80) P= .439
POSTEVAL	.7443 (80) P= .000	.4045 (80) P= .000	1.0000 (80) P= .	.7486 (80) P= .000	.7046 (80) P= .000	-.2338 (80) P= .037
SATOTAL	.7937 (80) P= .000	.2888 (80) P= .009	.7486 (80) P= .000	1.0000 (80) P= .	.5383 (80) P= .000	-.3110 (80) P= .005
TOTDIFF	.4625 (80) P= .000	-.3640 (80) P= .001	.7046 (80) P= .000	.5383 (80) P= .000	1.0000 (80) P= .	-.1700 (80) P= .132
DRUGSINT	-.2191 (80) P= .051	-.0878 (80) P= .439	-.2338 (80) P= .037	-.3110 (80) P= .005	-.1700 (80) P= .132	1.0000 (80) P= .

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	TOTALLAS	A_EXPTOT	TOTALCON	SATOTAL	TOTDIFF	BTOT
TOTALLAS	1.0000 (22) P= .	.4070 (22) P= .060	.7257 (22) P= .000	.7741 (22) P= .000	.4094 (22) P= .058	.7952 (22) P= .000
A_EXPTOT	.4070 (22) P= .060	1.0000 (22) P= .	.4126 (22) P= .056	.4248 (22) P= .049	-.3834 (22) P= .078	.3460 (22) P= .115
TOTALCON	.7257 (22) P= .000	.4126 (22) P= .056	1.0000 (22) P= .	.6059 (22) P= .003	.6831 (22) P= .000	.7201 (22) P= .000
SATOTAL	.7741 (22) P= .000	.4248 (22) P= .049	.6059 (22) P= .003	1.0000 (22) P= .	.2738 (22) P= .218	.7657 (22) P= .000
TOTDIFF	.4094 (22) P= .058	-.3834 (22) P= .078	.6831 (22) P= .000	.2738 (22) P= .218	1.0000 (22) P= .	.4527 (22) P= .034
BTOT	.7952 (22) P= .000	.3460 (22) P= .115	.7201 (22) P= .000	.7657 (22) P= .000	.4527 (22) P= .034	1.0000 (22) P= .

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - - t-tests for paired samples - - -

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
ANTE_EXP Ante expectations	80	.405	.000	65.7625	8.517	.952
POSTEVAL total control score				63.8625	11.178	1.250

Paired Differences			t-value	df	2-tail Sig
Mean	SD	SE of Mean			
1.9000	10.976	1.227	1.55	79	.126
95% CI (-.543, 4.343)					

* * * * M U L T I P L E R E G R E S S I O N * * * *

Listwise Deletion of Missing Data

Equation Number 1 Dependent Variable.. SATOTAL Total Satisfaction score

Block Number 1. Method: Enter ANTE_EXP

Variable(s) Entered on Step Number

1.. ANTE_EXP Ante expectations

Multiple R	.24687		
R Square	.06095	R Square Change	.06095
Adjusted R Square	.04891	F Change	5.06243
Standard Error	6.21346	Signif F Change	.0273

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	195.44566	195.44566
Residual	78	3011.35434	38.60711

F = 5.06243 Signif F = .0273

----- Variables in the Equation -----

Variable	B	SE B	95% Confidence Interval B	Beta
ANTE_EXP	.184679	.082080	.021270 .348088	.246875
(Constant)	22.555055	5.442311	11.720246 33.389864	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
ANTE_EXP	1.000000	1.000	2.250	.0273
(Constant)			4.144	.0001

End Block Number 1 All requested variables entered.

* * * * M U L T I P L E R E G R E S S I O N * * * *

Equation Number 1 Dependent Variable.. SATOTAL Total Satisfaction score

Block Number 2. Method: Enter POSTEVAL

Variable(s) Entered on Step Number

2.. POSTEVAL total control score

Multiple R	.63545		
R Square	.40379	R Square Change	.34284
Adjusted R Square	.38831	F Change	44.27805
Standard Error	4.98299	Signif F Change	.0000

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	1294.87711	647.43856
Residual	77	1911.92289	24.83017

F = 26.07468 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confidence Interval B		Beta
ANTE_EXP	-.009060	.071977	-.152384	.134265	-.012111
POSTEVAL	.364916	.054840	.255715	.474117	.640248
(Constant)	11.991337	4.644304	2.743345	21.239328	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
ANTE_EXP	.836373	1.196	-.126	.9002
POSTEVAL	.836373	1.196	6.654	.0000
(Constant)			2.582	.0117

End Block Number 2 All requested variables entered.

***** MULTIPLE REGRESSION *****

Equation Number 1 Dependent Variable.. SATOTAL Total Satisfaction score

Block Number 3. Method: Enter TOTALLAS

Variable(s) Entered on Step Number

3.. TOTALLAS Total Las Score: positive items reversed

Multiple R	.69867		
R Square	.48815	R Square Change	.08435
Adjusted R Square	.46794	F Change	12.52491
Standard Error	4.64732	Signif F Change	.0007

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	3	1565.38472	521.79491
Residual	76	1641.41528	21.59757

F = 24.15989 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confidence Interval B		Beta
ANTE_EXP	-.040316	.067707	-.175166	.094534	-.053894
POSTEVAL	.188497	.071420	.046252	.330743	.330720
TOTALLAS	.085839	.024255	.037531	.134147	.438601
(Constant)	14.342074	4.382083	5.614398	23.069749	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
ANTE_EXP	.822142	1.216	-.595	.5533
POSTEVAL	.428925	2.331	2.639	.0101
TOTALLAS	.438499	2.281	3.539	.0007
(Constant)			3.273	.0016

End Block Number 3 All requested variables entered.

***** MULTIPLE REGRESSION *****

Equation Number 1 Dependent Variable.. SATOTAL Total Satisfaction score

Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	21.8549	41.2300	34.7000	4.4514	80
*ZPRED	-2.8856	1.4670	.0000	1.0000	80
*SEPRE	.5328	1.8592	.9899	.3183	80
*ADJPRED	23.0479	41.7315	34.7088	4.4399	80
*RESID	-28.6504	8.3598	.0000	4.5582	80
*ZRESID	-6.1649	1.7988	.0000	.9808	80
*SRESID	-6.2802	1.9099	-.0009	1.0070	80
*DRESID	-29.7315	9.4240	-.0088	4.8082	80
*SDRESID	-8.9950	1.9445	-.0343	1.2421	80
*MAHAL	.0508	11.6559	2.9625	2.6347	80
*COOK D	.0000	.3721	.0139	.0463	80
*LEVER	.0006	.1475	.0375	.0334	80

Total Cases = 80

Durbin-Watson Test = 2.00591

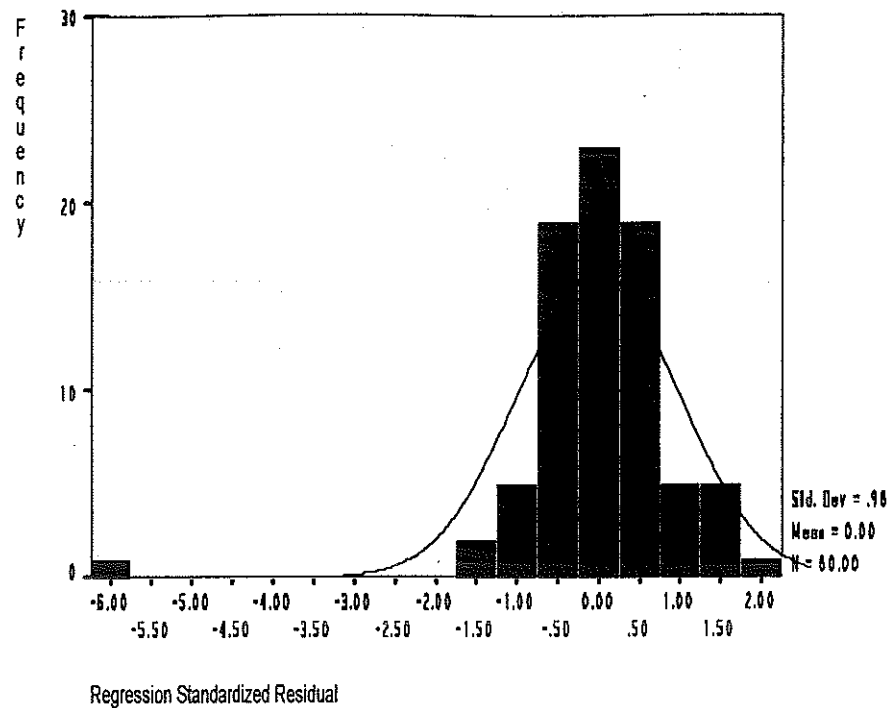
* * * * *

Outliers - Standardized Residual

Case #	*ZRESID
11	-6.16493
2	1.79884
16	-1.69020
51	-1.56179
9	1.52888
19	1.52834
48	1.51799
59	1.31579
56	1.28737
29	-1.21476

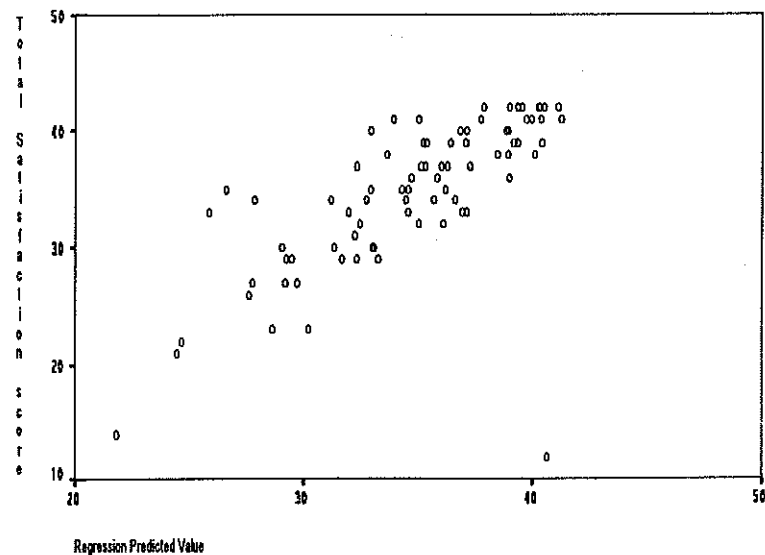
Histogram

Dependent Variable: Total Satisfaction score



Scatterplot

Dependent Variable: Total Satisfaction score



* * * * MULTIPLE REGRESSION * * * *

Equation Number 1 Dependent Variable..SATOTAL Total Satisfaction score

Block Number 1. Method: Enter ANTE_EXP

Variable(s) Entered on Step Number

1.. ANTE_EXP

Multiple R	.28878		
R Square	.08340	R Square Change	.08340
Adjusted R Square	.07164	F Change	7.09670
Standard Error	5.61713	Signif F Change	.0094

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	223.91653	223.91653
Residual	78	2461.07097	31.55219

F = 7.09670 Signif F = .0094

----- Variables in the Equation -----

Variable	B	SE B	95% Confdnce Intrvl B	Beta
ANTE_EXP	.197673	.074203	.049947 .345399	.288783
(Constant)	21.988031	4.919993	12.193077 31.782985	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
ANTE_EXP	1.000000	1.000	2.664	.0094
(Constant)			4.469	.0000

Block Number 2. Method: Enter POSTEVAL

Variable(s) Entered on Step Number

2.. POSTEVAL total control score

Multiple R	.74873		
R Square	.56060	R Square Change	.47720
Adjusted R Square	.54918	F Change	83.62317
Standard Error	3.91433	Signif F Change	.0000

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	1505.19217	752.59608
Residual	77	1179.79533	15.32202

F = 49.11860 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confdnce Intrvl B	Beta
ANTE_EXP	-.011475	.056541	-.124062 .101113	-.016763
POSTEVAL	.393940	.043079	.308158 .479721	.755353
(Constant)	10.584115	3.648286	3.319450 17.848779	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
ANTE_EXP	.836373	1.196	-.203	.8397
POSTEVAL	.836373	1.196	9.145	.0000
(Constant)			2.901	.0048

Block Number 3. Method: Enter TOTALLAS

Variable(s) Entered on Step Number

3.. TOTALLAS Total Las Score: positive items reversed

Multiple R	.83046		
R Square	.68966	R Square Change	.12906
Adjusted R Square	.67741	F Change	31.60664
Standard Error	3.31119	Signif F Change	.0000

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	3	1851.72627	617.24209
Residual	76	833.26123	10.96396

F = 56.29735 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confidence Interval B	Beta
ANTE_EXP	-.046852	.048241	-.142932 .049228	-.068447
POSTEVAL	.194263	.050886	.092914 .295612	.372487
TOTALLAS	.097156	.017281	.062737 .131575	.542522
(Constant)	13.244762	3.122209	7.026343 19.463180	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
ANTE_EXP	.822142	1.216	-.971	.3345
POSTEVAL	.428925	2.331	3.818	.0003
TOTALLAS	.438499	2.281	5.622	.0000
(Constant)			4.242	.0001

Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	20.9280	42.0364	34.9875	4.8414	80
*RESID	-7.1971	8.8068	.0000	3.2477	80
*ZPRED	-2.9040	1.4560	.0000	1.0000	80
*ZRESID	-2.1736	2.6597	.0000	.9808	80

Durbin-Watson Test = 2.02822

* * * * MULTIPLE REGRESSION * * * *

Equation Number 1 Dependent Variable.. SATOTAL Total Satisfaction score

Block Number 1. Method: Enter ANTE_EXP

Variable(s) Entered on Step Number

1.. ANTE_EXP

Multiple R	.28878			
R Square	.08340	R Square Change	.08340	
Adjusted R Square	.07164	F Change	7.09670	
Standard Error	5.61713	Signif F Change	.0094	

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	223.91653	223.91653
Residual	78	2461.07097	31.55219

F = 7.09670 Signif F = .0094

----- Variables in the Equation -----

Variable	B	SE B	95% Confdnce Intrvl B	Beta
ANTE_EXP	.197673	.074203	.049947 .345399	.288783
(Constant)	21.988031	4.919993	12.193077 31.782985	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
ANTE_EXP	1.000000	1.000	2.664	.0094
(Constant)			4.469	.0000

Block Number 2. Method: Enter TOTALLAS

Variable(s) Entered on Step Number

2.. TOTALLAS Total Las Score: positive items reversed

Multiple R	.79382			
R Square	.63015	R Square Change	.54675	
Adjusted R Square	.62054	F Change	113.82880	
Standard Error	3.59120	Signif F Change	.0000	

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	1691.93787	845.96894
Residual	77	993.04963	12.89675

F = 65.59552 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confdnce Intrvl B	Beta
ANTE_EXP	-.010727	.051304	-.112886 .091432	-.015671
TOTALLAS	.143203	.013422	.116476 .169930	.799652
(Constant)	17.389790	3.174890	11.067776 23.711804	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
----------	-----------	-----	---	-------

ANTE_EXP	.855042	1.170	-.209	.8349
TOTALLAS	.855042	1.170	10.669	.0000
(Constant)			5.477	.0000

Block Number 3. Method: Enter POSTEVAL

Variable(s) Entered on Step Number
3.. POSTEVAL total control score

Multiple R	.83046		
R Square	.68966	R Square Change	.05951
Adjusted R Square	.67741	F Change	14.57396
Standard Error	3.31119	Signif F Change	.0003

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	3	1851.72627	617.24209
Residual	76	833.26123	10.96396

F = 56.29735 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confidence Interval B	Beta
ANTE_EXP	-.046852	.048241	-.142932 .049228	-.068447
TOTALLAS	.097156	.017281	.062737 .131575	.542522
POSTEVAL	.194263	.050886	.092914 .295612	.372487
(Constant)	13.244762	3.122209	7.026343 19.463180	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
ANTE_EXP	.822142	1.216	-.971	.3345
TOTALLAS	.438499	2.281	5.622	.0000
POSTEVAL	.428925	2.331	3.818	.0003
(Constant)			4.242	.0001

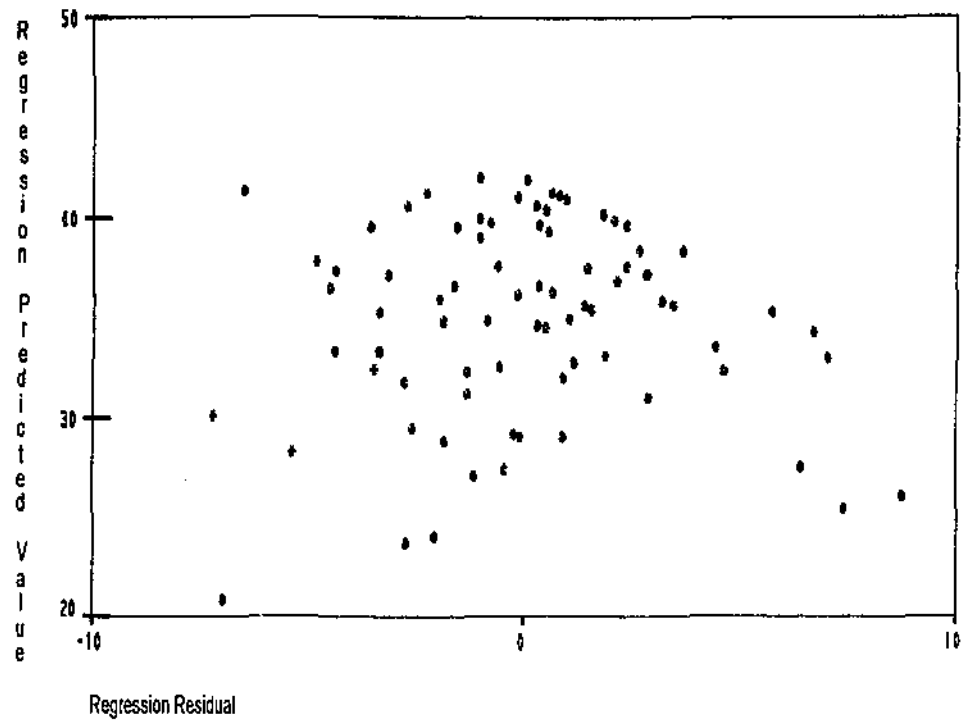
Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	20.9280	42.0364	34.9875	4.8414	80
*RESID	-7.1971	8.8068	.0000	3.2477	80
*ZPRED	-2.9040	1.4560	.0000	1.0000	80
*ZRESID	-2.1736	2.6597	.0000	.9808	80

Durbin-Watson Test = 2.02822

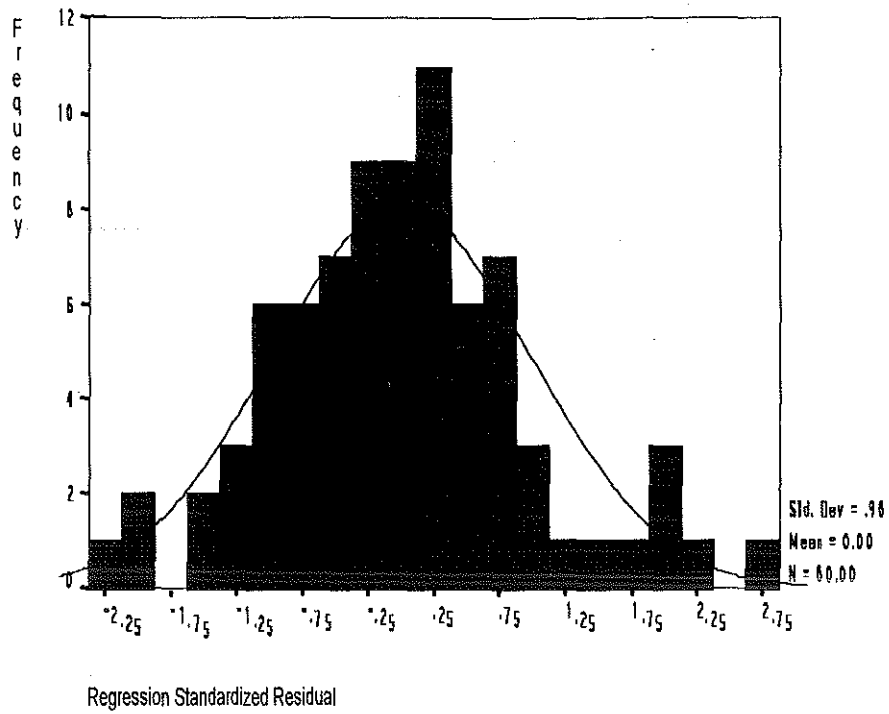
Scatterplot

Dependent Variable: Total Satisfaction score



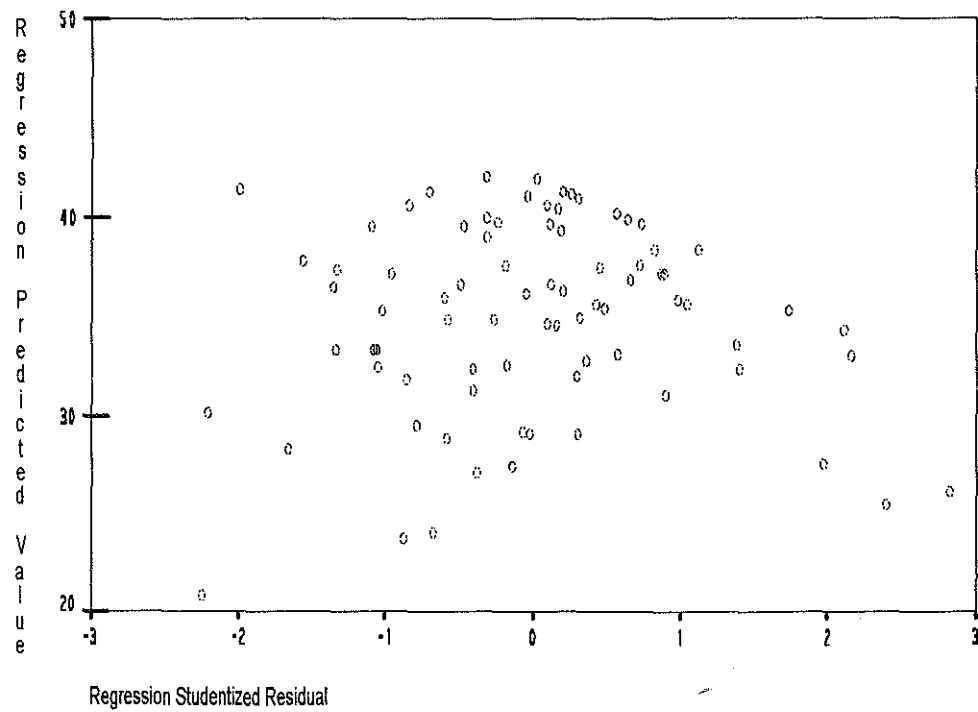
Histogram

Dependent Variable: Total Satisfaction score



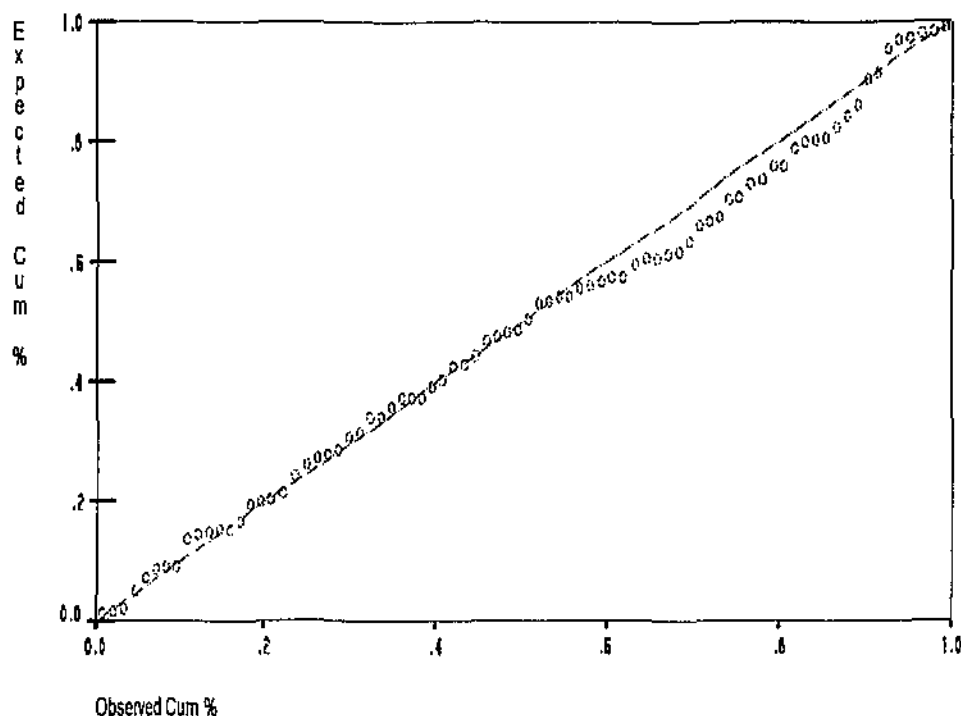
Scatterplot

Dependent Variable: Total Satisfaction score



Normal Plot of Regression Standardized Residual

Dependent Variable: Total Satisfaction score



* * * * MULTIPLE REGRESSION * * * *

Equation Number 1 Dependent Variable.. SATOTAL Total Satisfaction score

Block Number 1. Method: Enter POSTEVAL

Variable(s) Entered on Step Number

1.. POSTEVAL total control score

Multiple R	.74857		
R Square	.56036	R Square Change	.56036
Adjusted R Square	.55472	F Change	99.41811
Standard Error	3.89020	Signif F Change	.0000

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	1504.56111	1504.56111
Residual	78	1180.42639	15.13367

F = 99.41811 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confidence Interval B	Beta
POSTEVAL	.390403	.039154	.312453 .468354	.748572
(Constant)	10.055361	2.538044	5.002503 15.108219	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
POSTEVAL	1.000000	1.000	9.971	.0000
(Constant)			3.962	.0002

Block Number 2. Method: Enter TOTDIFF

Variable(s) Entered on Step Number
2.. TOTDIFF

Multiple R	.74873			
R Square	.56060	R Square Change	.00024	
Adjusted R Square	.54918	F Change	.04119	
Standard Error	3.91433	Signif F Change	.8397	

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	1505.19217	752.59608
Residual	77	1179.79533	15.32202

F = 49.11860 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confidence Interval B	Beta
POSTEVAL	.382465	.055517	.271917 .493014	.733351
TOTDIFF	.011475	.056541	-.101113 .124062	.021603
(Constant)	10.584115	3.648286	3.319450 17.848779	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
POSTEVAL	.503596	1.986	6.889	.0000
TOTDIFF	.503596	1.986	.203	.8397
(Constant)			2.901	.0048

Block Number 3. Method: Enter TOTALLAS

Variable(s) Entered on Step Number
3.. TOTALLAS Total Las Score: positive items reversed

Multiple R	.83046			
R Square	.68966	R Square Change	.12906	
Adjusted R Square	.67741	F Change	31.60664	
Standard Error	3.31119	Signif F Change	.0000	

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	3	1851.72627	617.24209
Residual	76	833.26123	10.96396

F = 56.29735 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confidence Interval B	Beta
POSTEVAL	.147411	.062877	.022180 .272642	.282651

TOTDIFF	.046852	.048241	-.049228	.142932	.088209
TOTALLAS	.097156	.017281	.062737	.131575	.542522
(Constant)	13.244762	3.122209	7.026343	19.463180	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
POSTEVAL	.280930	3.560	2.344	.0217
TOTDIFF	.495027	2.020	.971	.3345
TOTALLAS	.438499	2.281	5.622	.0000
(Constant)			4.242	.0001

Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	20.9280	42.0364	34.9875	4.8414	80
*RESID	-7.1971	8.8068	.0000	3.2477	80
*ZPRED	-2.9040	1.4560	.0000	1.0000	80
*ZRESID	-2.1736	2.6597	.0000	.9808	80

Durbin-Watson Test = 2.02822

* * * * MULTIPLE REGRESSION * * * *

Equation Number 1 Dependent Variable.. SATOTAL Total Satisfaction score

Block Number 1. Method: Enter TOTDIFF

Variable(s) Entered on Step Number
1.. TOTDIFF

Multiple R	.53829		
R Square	.28976	R Square Change	.28976
Adjusted R Square	.28065	F Change	31.82194
Standard Error	4.94455	Signif F Change	.0000

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	778.00038	778.00038
Residual	78	1906.98712	24.44855

F = 31.82194 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confidence Interval B	Beta
TOTDIFF	.285914	.050684	.185010 .386818	.538293
(Constant)	35.530736	.561142	34.413588 36.647885	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
----------	-----------	-----	---	-------

TOTDIFF 1.000000 1.000 5.641 .0000
 (Constant) 63.319 .0000

Block Number 2. Method: Enter POSTEVAL

Variable(s) Entered on Step Number
 2.. POSTEVAL total control score

Multiple R .74873
 R Square .56060 R Square Change .27084
 Adjusted R Square .54918 F Change 47.46058
 Standard Error 3.91433 Signif F Change .0000

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	1505.19217	752.59608
Residual	77	1179.79533	15.32202

F = 49.11860 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confidence Interval B	Beta
TOTDIFF	.011475	.056541	-.101113 .124062	.021603
POSTEVAL	.382465	.055517	.271917 .493014	.733351
(Constant)	10.584115	3.648286	3.319450 17.848779	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
TOTDIFF	.503596	1.986	.203	.8397
POSTEVAL	.503596	1.986	6.889	.0000
(Constant)			2.901	.0048

Block Number 3. Method: Enter TOTALLAS

Variable(s) Entered on Step Number
 3.. TOTALLAS Total Las Score: positive items reversed

Multiple R .83046
 R Square .68966 R Square Change .12906
 Adjusted R Square .67741 F Change 31.60664
 Standard Error 3.31119 Signif F Change .0000

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	3	1851.72627	617.24209
Residual	76	833.26123	10.96396

F = 56.29735 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	95% Confidence Interval B	Beta
TOTDIFF	.046852	.048241	-.049228 .142932	.088209
POSTEVAL	.147411	.062877	.022180 .272642	.282651
TOTALLAS	.097156	.017281	.062737 .131575	.542522
(Constant)	13.244762	3.122209	7.026343 19.463180	

----- Variables in the Equation -----

Variable	Tolerance	VIF	T	Sig T
TOTDIFF	.495027	2.020	.971	.3345
POSTEVAL	.280930	3.560	2.344	.0217
TOTALLAS	.438499	2.281	5.622	.0000
(Constant)			4.242	.0001

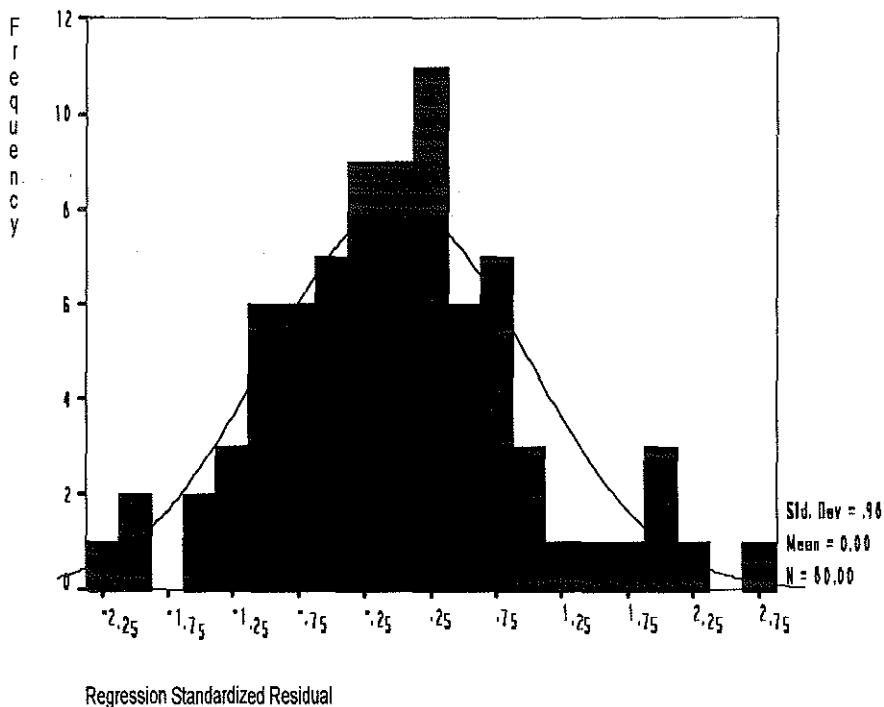
Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	20.9280	42.0364	34.9875	4.8414	80
*RESID	-7.1971	8.8068	.0000	3.2477	80
*ZPRED	-2.9040	1.4560	.0000	1.0000	80
*ZRESID	-2.1736	2.6597	.0000	.9808	80

Durbin-Watson Test = 2.02822

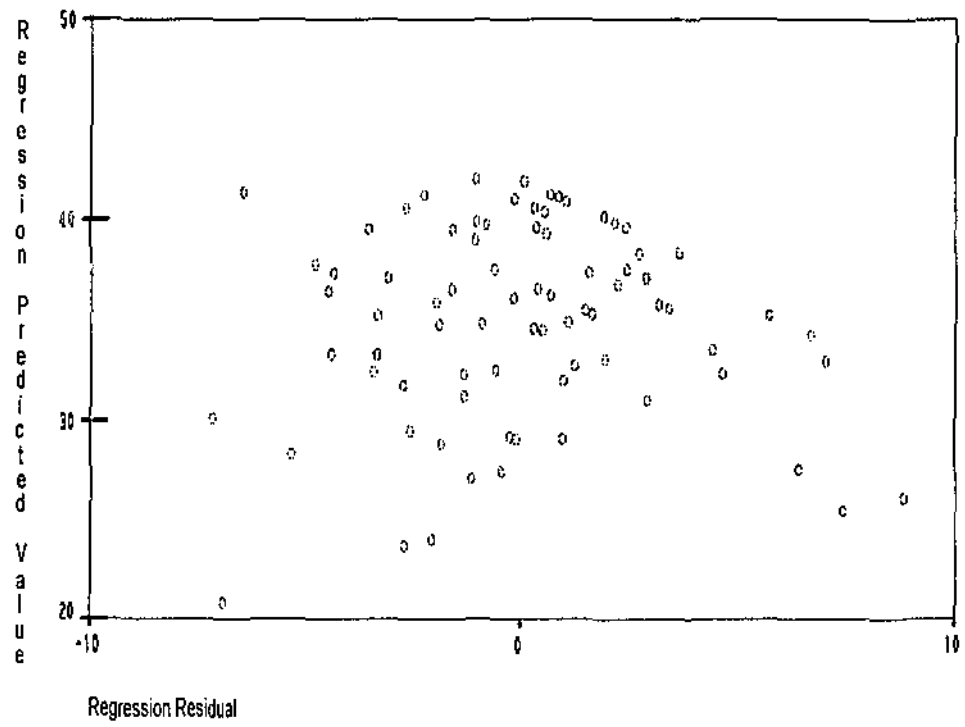
Histogram

Dependent Variable: Total Satisfaction score



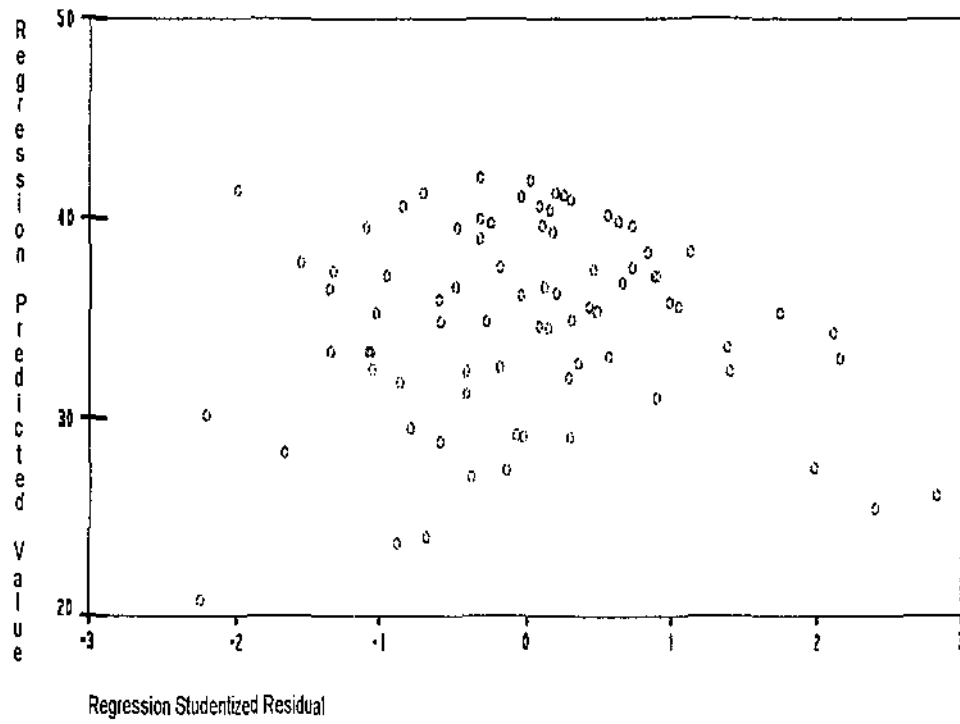
Scatterplot

Dependent Variable: Total Satisfaction score



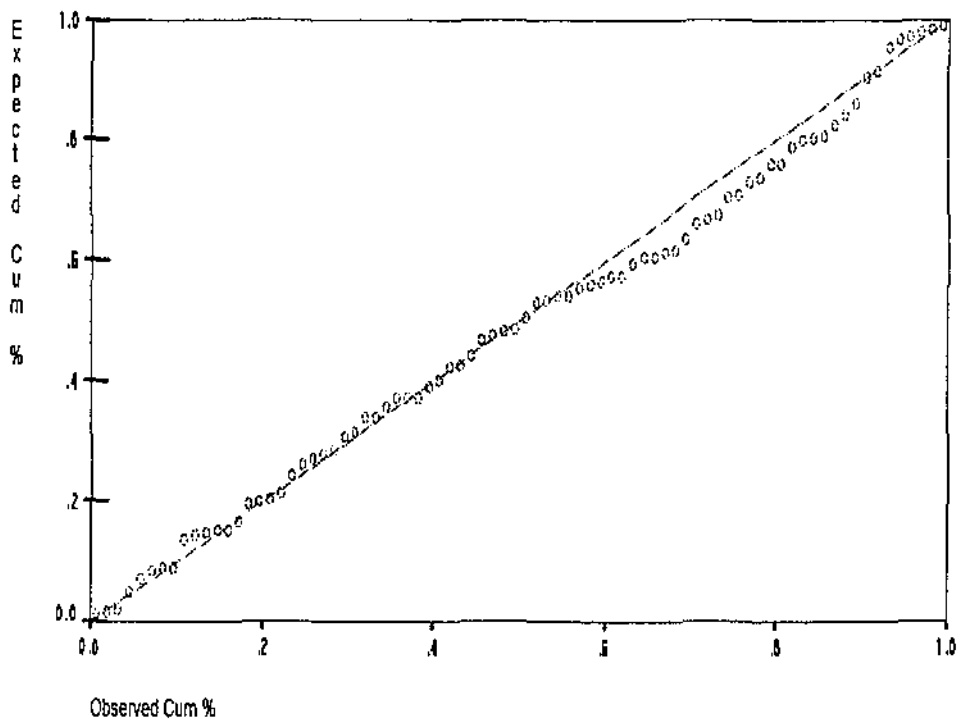
Scatterplot

Dependent Variable: Total Satisfaction score



Normal Plot of Regression Standardized Residual

Dependent Variable: Total Satisfaction score



Frequencies and Percents for P-A Discrepancy

Q28_14

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-5	7	8.8	8.8	8.8
	-4	5	6.3	6.3	15.0
	-3	3	3.8	3.8	18.8
	-2	8	10.0	10.0	28.8
	-1	8	10.0	10.0	38.8
	0	25	31.3	31.3	70.0
	1	9	11.3	11.3	81.3
	2	4	5.0	5.0	86.3
	3	5	6.3	6.3	92.5
	4	2	2.5	2.5	95.0
	5	3	3.8	3.8	98.8
	6	1	1.3	1.3	100.0
Total		80	100.0	100.0	
Mean	-.338	Median	.000	Mode	.000
Std dev	2.580				

Q29_15

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-6	4	5.0	5.0	5.0
	-5	4	5.0	5.0	10.0
	-3	3	3.8	3.8	13.8
	-2	6	7.5	7.5	21.3
	-1	15	18.8	18.8	40.0
	0	37	46.3	46.3	86.3
	1	7	8.8	8.8	95.0
	2	3	3.8	3.8	98.8
	3	1	1.3	1.3	100.0
Total		80	100.0	100.0	
Mean	-.800	Median	.000	Mode	.000
Std dev	1.905				

Q30_16

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-6	4	5.0	5.0	5.0
	-5	2	2.5	2.5	7.5
	-4	2	2.5	2.5	10.0
	-3	10	12.5	12.5	22.5
	-2	7	8.8	8.8	31.3
	-1	7	8.8	8.8	40.0
	0	31	38.8	38.8	78.8
	1	6	7.5	7.5	86.3
	2	3	3.8	3.8	90.0
	3	6	7.5	7.5	97.5
	4	2	2.5	2.5	100.0
Total		80	100.0	100.0	
Mean	-.688	Median	.000	Mode	.000
Std dev	2.298				

Q31_17

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-4	1	1.3	1.3	1.3
	-3	2	2.5	2.5	3.8
	-2	1	1.3	1.3	5.0
	-1	6	7.5	7.5	12.5

0	57	71.3	71.3	83.8
1	10	12.5	12.5	96.3
4	1	1.3	1.3	97.5
5	1	1.3	1.3	98.8
6	1	1.3	1.3	100.0

Total	80	100.0	100.0	

Mean .088 Median .000 Mode .000
Std dev 1.285

Q32_18

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-5	2	2.5	2.5	2.5
	-4	2	2.5	2.5	5.0
	-3	20	25.0	25.0	30.0
	-2	10	12.5	12.5	42.5
	-1	11	13.8	13.8	56.3
	0	9	11.3	11.3	67.5
	1	8	10.0	10.0	77.5
	2	4	5.0	5.0	82.5
	3	8	10.0	10.0	92.5
	5	2	2.5	2.5	95.0
	6	4	5.0	5.0	100.0

Total		80	100.0	100.0	

Mean -.438 Median -1.000 Mode -3.000
Std dev 2.727

Q33_19

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-6	5	6.3	6.3	6.3
	-5	2	2.5	2.5	8.8
	-4	1	1.3	1.3	10.0
	-3	5	6.3	6.3	16.3
	-2	5	6.3	6.3	22.5
	-1	4	5.0	5.0	27.5
	0	28	35.0	35.0	62.5
	1	15	18.8	18.8	81.3
	2	5	6.3	6.3	87.5
	3	6	7.5	7.5	95.0
	4	2	2.5	2.5	97.5
	5	2	2.5	2.5	100.0

Total		80	100.0	100.0	

Mean -.150 Median .000 Mode .000
Std dev 2.476

Q34_20

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-6	2	2.5	2.5	2.5
	-3	1	1.3	1.3	3.8
	-2	1	1.3	1.3	5.0
	-1	2	2.5	2.5	7.5
	0	51	63.8	63.8	71.3
	1	6	7.5	7.5	78.8
	2	5	6.3	6.3	85.0
	3	3	3.8	3.8	88.8
	4	2	2.5	2.5	91.3
	5	3	3.8	3.8	95.0
	6	4	5.0	5.0	100.0

Total		80	100.0	100.0	

Mean .663 Median .000 Mode .000
Std dev 2.122

Q35_21

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-6	1	1.3	1.3	1.3
	-5	4	5.0	5.0	6.3
	-4	9	11.3	11.3	17.5
	-3	7	8.8	8.8	26.3
	-2	6	7.5	7.5	33.8
	-1	10	12.5	12.5	46.3
	0	18	22.5	22.5	68.8
	1	12	15.0	15.0	83.8
	2	7	8.8	8.8	92.5
	3	4	5.0	5.0	97.5
	4	1	1.3	1.3	98.8
	6	1	1.3	1.3	100.0
Total		80	100.0	100.0	

Mean -.713 Median .000 Mode .000
Std dev 2.425

Q36_22

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-3	7	8.8	8.8	8.8
	-2	6	7.5	7.5	16.3
	-1	13	16.3	16.3	32.5
	0	34	42.5	42.5	75.0
	1	8	10.0	10.0	85.0
	2	7	8.8	8.8	93.8
	3	4	5.0	5.0	98.8
	5	1	1.3	1.3	100.0
Total		60	100.0	100.0	

Mean -.088 Median .000 Mode .000
Std dev 1.577

Q37_23

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-5	2	2.5	2.5	2.5
	-4	5	6.3	6.3	8.8
	-3	4	5.0	5.0	13.8
	-2	7	8.8	8.8	22.5
	-1	7	8.8	8.8	31.3
	0	15	18.8	18.8	50.0
	1	17	21.3	21.3	71.3
	2	9	11.3	11.3	82.5
	3	5	6.3	6.3	88.8
	4	5	6.3	6.3	95.0
	6	4	5.0	5.0	100.0
Total		80	100.0	100.0	

Mean .388 Median .500 Mode 1.000
Std dev 2.543

Q38_24

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-5	1	1.3	1.3	1.3

-4	1	1.3	1.3	2.5
-3	5	6.3	6.3	8.8
-2	4	5.0	5.0	13.8
-1	10	12.5	12.5	26.3
0	21	26.3	26.3	52.5
1	19	23.8	23.8	76.3
2	4	5.0	5.0	81.3
3	11	13.8	13.8	95.0
6	4	5.0	5.0	100.0

Total	80	100.0	100.0
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Mean .525 Median .000 Mode .000
Std dev 2.158

Q39_25

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-6	3	3.8	3.8	3.8
	-4	6	7.5	7.5	11.3
	-3	6	7.5	7.5	18.8
	-2	8	10.0	10.0	28.8
	-1	9	11.3	11.3	40.0
	0	22	27.5	27.5	67.5
	1	9	11.3	11.3	78.8
	2	7	8.8	8.8	87.5
	3	8	10.0	10.0	97.5
	4	1	1.3	1.3	98.8
	6	1	1.3	1.3	100.0
Total		80	100.0	100.0	

Mean -.350 Median .000 Mode .000
Std dev 2.387

TOTTDIFF Post-Ante

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	-35	1	1.3	1.3	1.3
	-31	1	1.3	1.3	2.5
	-23	1	1.3	1.3	3.8
	-22	1	1.3	1.3	5.0
	-21	3	3.8	3.8	8.8
	-19	1	1.3	1.3	10.0
	-16	1	1.3	1.3	11.3
	-15	1	1.3	1.3	12.5
	-13	1	1.3	1.3	13.8
	-12	2	2.5	2.5	16.3
	-11	2	2.5	2.5	18.8
	-10	5	6.3	6.3	25.0
	-9	2	2.5	2.5	27.5
	-8	1	1.3	1.3	28.8
	-6	2	2.5	2.5	31.3
	-5	2	2.5	2.5	33.8
	-4	1	1.3	1.3	35.0
	-3	2	2.5	2.5	37.5
	-2	4	5.0	5.0	42.5
	-1	5	6.3	6.3	48.8
	0	4	5.0	5.0	53.8
	1	4	5.0	5.0	58.8
	2	4	5.0	5.0	63.8
	3	6	7.5	7.5	71.3
	4	4	5.0	5.0	76.3
	5	2	2.5	2.5	78.8
	7	2	2.5	2.5	81.3
	8	6	7.5	7.5	88.8
	10	1	1.3	1.3	90.0
	11	3	3.8	3.8	93.8
	15	1	1.3	1.3	95.0
	16	1	1.3	1.3	96.3

		17	1	1.3	1.3	97.5
		19	1	1.3	1.3	98.8
		24	1	1.3	1.3	100.0
			-----	-----	-----	
	Total		80	100.0	100.0	
Mean	-1.900	Median	.000	Mode	3.000	
Std dev	10.976					

* Multiple modes exist. The smallest value is shown.

FAILEXP felt failed the experience

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Yes	1	23	28.8	28.8	28.8
No	2	57	71.3	71.3	100.0
		-----	-----	-----	
	Total	80	100.0	100.0	

PAINEXP birth pain expectation

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
worse than expected	1	35	43.8	43.8	43.8
same as expected	2	11	13.8	13.8	57.5
better than expected	3	26	32.5	32.5	90.0
don't know	4	8	10.0	10.0	100.0
		-----	-----	-----	
	Total	80	100.0	100.0	

ANTE_EXP Ante expectations

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	44	1	1.3	1.3	1.3
	45	2	2.5	2.5	3.8
	46	1	1.3	1.3	5.0
	51	1	1.3	1.3	6.3
	52	1	1.3	1.3	7.5
	53	1	1.3	1.3	8.8
	54	2	2.5	2.5	11.3
	56	1	1.3	1.3	12.5
	57	2	2.5	2.5	15.0
	58	3	3.8	3.8	18.8
	59	3	3.8	3.8	22.5
	60	4	5.0	5.0	27.5
	61	1	1.3	1.3	28.8
	62	3	3.8	3.8	32.5
	63	3	3.8	3.8	36.3
	64	2	2.5	2.5	38.8
	65	3	3.8	3.8	42.5
	66	4	5.0	5.0	47.5
	67	2	2.5	2.5	50.0
	68	5	6.3	6.3	56.3
	69	7	8.8	8.8	65.0
	70	3	3.8	3.8	68.8
	71	5	6.3	6.3	75.0
	72	4	5.0	5.0	80.0
	73	3	3.8	3.8	83.8
	74	2	2.5	2.5	86.3
	76	2	2.5	2.5	88.8
	77	3	3.8	3.8	92.5
	78	3	3.8	3.8	96.3
	79	2	2.5	2.5	98.8
	81	1	1.3	1.3	100.0
	Total	80	100.0	100.0	

Mean 65.763 Median 67.500

ANTEGRP

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	40	50.0	50.0	50.0
	2	40	50.0	50.0	100.0
	Total	80	100.0	100.0	

t-tests for independent samples of ANTEGRP

Variable	Number of Cases	Mean	SD	SE of Mean
TOTALLAS Total Las Score: positive items reversed				
ANTEGRP 1	40	119.6750	33.955	5.369
ANTEGRP 2	40	135.9500	29.291	4.631

Mean Difference = -16.2750

Levene's Test for Equality of Variances: $F = 1.346$ $P = .250$

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-2.30	78	.024	7.090	(-30.394, -2.156)
Unequal	-2.30	76.36	.024	7.090	(-30.400, -2.150)

Variable	Number of Cases	Mean	SD	SE of Mean
ANTE_EXP Ante expectations				
ANTEGRP 1	40	59.0500	6.345	1.003
ANTEGRP 2	40	72.4750	3.776	.597

Mean Difference = -13.4250

Levene's Test for Equality of Variances: $F = 6.064$ $P = .016$

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-11.50	78	.000	1.167	(-15.750, -11.100)
Unequal	-11.50	63.55	.000	1.167	(-15.758, -11.092)

Variable	Number of Cases	Mean	SD	SE of Mean
POSTEVAL total control score				
ANTEGRP 1	40	60.2500	10.500	1.660
ANTEGRP 2	40	67.4750	10.775	1.704

Mean Difference = -7.2250

Levene's Test for Equality of Variances: $F = .053$ $P = .818$

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-3.04	78	.003	2.379	(-11.962, -2.488)
Unequal	-3.04	77.95	.003	2.379	(-11.962, -2.488)

t-tests for independent samples of ANTEGRP

Variable	Number of Cases	Mean	SD	SE of Mean

SATOTAL	Total Satisfaction score			
ANTEGRP 1	40	33.7250	5.773	.913
ANTEGRP 2	40	36.2500	5.678	.898

Mean Difference = -2.5250

Levene's Test for Equality of Variances: F= .002 P= .966

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff

Equal	-1.97	78	.052	1.280	(-5.075, .025)
Unequal	-1.97	77.98	.052	1.280	(-5.075, .025)

Variable	Number of Cases	Mean	SD	SE of Mean

TOTDIFF	Post-Ante			
ANTEGRP 1	40	1.2000	11.009	1.741
ANTEGRP 2	40	-5.0000	10.155	1.606

Mean Difference = 6.2000

Levene's Test for Equality of Variances: F= .031 P= .861

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff

Equal	2.62	78	.011	2.368	(1.484, 10.916)
Unequal	2.62	77.50	.011	2.368	(1.483, 10.917)

Variable	Number of Cases	Mean	SD	SE of Mean

DRUGS2	all drugs			
ANTEGRP 1	40	1.9750	.800	.127
ANTEGRP 2	40	1.8500	.921	.146

Mean Difference = .1250

Levene's Test for Equality of Variances: F= 3.304 P= .055

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff

Equal	.65	78	.519	.193	(-.259, .509)
Unequal	.65	76.50	.519	.193	(-.259, .509)

t-tests for independent samples of ANTEGRP

Variable	Number of Cases	Mean	SD	SE of Mean

DRUGS drugs less epidural

ANTEGRP 1	40	1.7500	.870	.138
ANTEGRP 2	40	1.6000	.810	.128

Mean Difference = .1500

Levene's Test for Equality of Variances: F= .015 P= .904

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.80	78	.427	.188	(-.224, .524)
Unequal	.80	77.61	.427	.188	(-.224, .524)

Variable	Number of Cases	Mean	SD	SE of Mean
INTS				
ANTEGRP 1	40	1.9750	1.121	.177
ANTEGRP 2	40	1.9500	1.239	.196

Mean Difference = .0250

Levene's Test for Equality of Variances: F= .040 P= .842

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.09	78	.925	.264	(-.501, .551)
Unequal	.09	77.22	.925	.264	(-.501, .551)

Variable	Number of Cases	Mean	SD	SE of Mean
DRUGSINT all drugs & all ints				
ANTEGRP 1	40	3.9500	1.552	.245
ANTEGRP 2	40	3.8000	1.757	.278

Mean Difference = .1500

Levene's Test for Equality of Variances: F= 1.361 P= .247

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.40	78	.687	.371	(-.588, .888)
Unequal	.40	76.83	.687	.371	(-.588, .888)

DRUGS by INTS

Controlling for..

EPIDURAL epidural for pain relief Value = 0 did not have it

INTS
Count |

Page 1 of 1

DRUGS		INTS						Row
		0	1	2	3	4	5	Total
	0	1		1				2 3.3
	1	4	8	6	2	1		21 34.4
	2	2	8	10	5	2		27 44.3
	3	1	1	3	2	3	1	11 18.0
Column		8	17	20	9	6	1	61
Total		13.1	27.9	32.8	14.8	9.8	1.6	100.0

DRUGS by INTS

Controlling for..

EPIDURAL epidural for pain relief Value = 1 had it

DRUGS	Count	INTS				Row
		1	2	3	4	Total
	0	2		1	1	4 21.1
	1	1	2	2	1	6 31.6
	2		4	3		7 36.8
	3	1	1			2 10.5
Column		4	7	6	2	19
Total		21.1	36.8	31.6	10.5	100.0

Number of Missing Observations: 0

DRUGS by INTS

Controlling for..

SEVERE3 Value = 1

DRUGS	Count	INTS			Row
		0	1	2	Total
	0	1		1	2 5.0
	1	4	8	6	18 45.0
	2	2	8	10	20 50.0
Column		7	16	17	40
Total		17.5	40.0	42.5	100.0

DRUGS by INTS
Controlling for..
SEVERE3 Value = 2

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Count	INTS						Row Total
	0	1	2	3	4	5	
DRUGS							
0		2		1	1		4 10.0
1		1	2	4	2		9 22.5
2			4	8	2		14 35.0
3	1	2	4	2	3	1	13 32.5
Column Total	1 2.5	5 12.5	10 25.0	15 37.5	8 20.0	1 2.5	40 100.0

DRUGSINT

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	1	1.3	1.3	1.3
	1	4	5.0	5.0	6.3
	2	13	16.3	16.3	22.5
	3	16	20.0	20.0	42.5
	4	16	20.0	20.0	62.5
	5	17	21.3	21.3	83.8
	6	9	11.3	11.3	95.0
	8	1	1.3	1.3	100.0
	Total	80	100.0	100.0	

Valid cases 80 Missing cases 0
t-tests for independent samples of SEVERE3 Lo & Hi ints
(drugs+ints)

Variable	Number of Cases	Mean	SD	SE of Mean
TOTALLAS Total Las Score: positive items reversed				
no epi & <= 2 dru	40	133.9250	33.282	5.262
epi & > 2 drugs &	40	121.7000	31.022	4.905

Mean Difference = 12.2250

Levene's Test for Equality of Variances: F= .366 P= .547

t-test for Equality of Means				95%	
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.70	78	.093	7.194	(-2.100, 26.550)
Unequal	1.70	77.62	.093	7.194	(-2.100, 26.550)

Variable	Number of Cases	Mean	SD	SE of Mean

ANTE_EXP	Ante expectations			
no epi & <= 2 dru	40	67.2000	7.620	1.205
epi & > 2 drugs &	40	64.3250	9.200	1.455

Mean Difference = 2.8750

Levene's Test for Equality of Variances: F= 1.040 P= .311

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.52	78	.132	1.889	(-.086, 6.636)
Unequal	1.52	75.39	.132	1.889	(-.088, 6.638)

Variable	Number of Cases	Mean	SD	SE of Mean

POSTEVAL	total control score			
no epi & <= 2 dru	40	67.9500	11.003	1.740
epi & > 2 drugs &	40	59.7750	9.888	1.563

Mean Difference = 8.1750

Levene's Test for Equality of Variances: F= .380 P= .540

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	3.50	78	.001	2.339	(3.517, 12.833)
Unequal	3.50	77.13	.001	2.339	(3.516, 12.834)

Variable	Number of Cases	Mean	SD	SE of Mean

SATOTAL	Total Satisfaction score			
no epi & <= 2 dru	40	36.7250	5.760	.911
epi & > 2 drugs &	40	33.2500	5.429	.858

Mean Difference = 3.4750

Levene's Test for Equality of Variances: F= .005 P= .944

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.78	78	.007	1.252	(.983, 5.967)
Unequal	2.78	77.73	.007	1.252	(.983, 5.967)

Variable	Number of Cases	Mean	SD	SE of Mean
TOTDIFF Post-Ante				
no epi & <= 2 dru	40	.7500	9.164	1.449
epi & > 2 drugs &	40	-4.5500	12.068	1.908

Mean Difference = 5.3000

Levene's Test for Equality of Variances: F= 3.307 P= .073

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.21	78	.030	2.396	(.529, 10.071)
Unequal	2.21	72.76	.030	2.396	(.524, 10.076)

Variable	Number of Cases	Mean	SD	SE of Mean
DRUGSINT all drugs & all ints				
no epi & <= 2 dru	40	2.7000	1.043	.165
epi & > 2 drugs &	40	5.0500	1.260	.199

Mean Difference = -2.3500

Levene's Test for Equality of Variances: F= .002 P= .965

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-9.09	78	.000	.259	(-2.865, -1.835)
Unequal	-9.09	75.37	.000	.259	(-2.865, -1.835)