

**SEXUAL ABUSE PREVALENCE AND ASSOCIATION WITH ADVERSE
LABOUR AND BIRTH OUTCOMES**

A thesis submitted to Auckland University of Technology in partial fulfilment of the
degree of Master of Health Science.

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This thesis is dedicated to my mum, whose unending love and support has enabled me to finish, and to my daughters Alexandra and Dominique, ever fantastic.
I love you all hugely

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION AND OVERVIEW.....	1
Birthing in New Zealand	2
Sexual Abuse.....	4
Sexual Abuse and Traumatic Birth.....	6
Sexual Abuse, Traumatic Birth and Post-traumatic Stress Disorder	9
Aim of the Study	11
Significance of the Study	11
Structure of the Thesis.....	11
CHAPTER 2 LITERATURE REVIEW.....	13
Introduction	13
Definition of Sexual Abuse	13
Prevalence of Sexual Abuse.....	14
Lifetime and Adulthood Prevalence of Sexual Abuse	19
Prevalence of Childhood Sexual Abuse	21
Revictimisation	21
Prevalence of Adulthood Sexual Abuse in Pregnancy.....	22
Effects of Sexual Abuse.....	22
Type of Research Designs.....	22
Identified Effects of Sexual Abuse	24
Meta analyses of Effects of Sexual Abuse.....	27
History of Trauma Research and Post Traumatic Stress Disorder	29
History of Trauma Research	29
Diagnosis of Post-traumatic Stress Disorder	32
Triggers	38
Trauma, PTSD and Childbirth.....	38
Sexual Abuse and Traumatic Birth Experiences	45
Literature Review Summary.....	52
Conceptual Framework.....	52

CHAPTER 3 METHODS.....	58
Introduction	58
Study Aims	59
Research Questions	59
Methodology	59
Study Design	60
Sample	60
Setting.....	62
Sample size.....	63
Study Instrument: The Life Experience Questionnaire (LEQ)	64
Obstetric Outcomes Questionnaire (OOQ)	64
Childbirth Experience: Wijma Delivery Experience Questionnaire (W-DEQ)	66
Birth Trauma: Traumatic Event Scale (TES).....	68
Sexual Abuse: Norvold Abuse Questionnaire (NorAQ).....	71
Postnatal Depression	72
Demographics	73
Study Procedures	73
Preliminary Preparation	73
Recruitment.....	74
Data Management	75
Ethical considerations.....	77
Consultation and Planning	77
Cultural Considerations.....	78
General Ethical Considerations.....	79
CHAPTER 4 FINDINGS.....	80
Baseline Characteristics	80
Research Question 1.....	81
What is the lifetime prevalence of sexual abuse amongst a group of women who recently gave birth?	81
Research Question 2.....	85
What were the labour outcomes amongst a group of women who recently gave birth?	85
Birth Experience.....	88
Birth Trauma	89
Postnatal Depression	91

Research Question 3.....	91
Is a history of sexual abuse associated with adverse labour outcomes?	91
Sexual Abuse and Obstetric Outcomes	92
Sexual Abuse and Birth Experience.....	94
Sexual Abuse and Birth Trauma.	95
Summary.....	96
CHAPTER 5 DISCUSSION.....	99
Summary of Key Findings.....	99
Study Strengths and Limitations	99
Design and Conduct	99
Response Rate and Representation of Diversity	102
Procedures	103
Interpretation of Findings	104
Prevalence of Sexual Abuse.....	104
Tests of Association	105
General Interpretations.....	111
Implications for Practice	112
Implications for Future Research.....	114
Conclusion.....	116
REFERENCES.....	118
APPENDICES.....	124
Appendix A	125
Ethical Approval	
Appendix B	127
Life Experiences Questionnaire	
Appendix C	136
Letter of Support from Auckland Kindergarten Association	
Appendix D	138
Data Dictionary	
Appendix E	145
Permission for Use of W-DEQ and TES	
Appendix F.....	147
Permission for Use of NorAq	

Appendix G	149
Introductory Flyer	
Appendix H	152
Participant Information Sheet	
Appendix I	155
Letter of Support from Kawa Whakaruruhau Komiti	

List Of Tables

Table 1. <i>Studies Exploring Prevalence of Sexual Abuse</i>	15
Table 2. <i>Lifetime experience of sexual interference or sexual assault and experience of sexual interference or sexual assault before the age of 17</i>	20
Table 3. <i>Effects of sexual abuse</i>	25
Table 4. <i>Meta-analyses of the effects of sexual abuse</i>	28
Table 5: <i>The DSM-IV (1994) Diagnostic criteria for post-traumatic stress disorder</i>	34
Table 6. <i>Prevalence of post traumatic stress disorder and symptoms</i>	40
Table 7. <i>Research studies investigating the effect of sexual abuse on labour and birth</i> .	46
Table 8. <i>Obstetric outcome</i>	65
Table 9. <i>Criteria description and fulfilment requirements for PTSD and PTSD symptomology</i>	70
Table 10. <i>Ethnicity of participants</i>	81
Table 11. <i>Frequency of time of occurrence of abuse and lifetime frequency of type of abuse</i>	88
Table 12. <i>Perpetrator of sexual abuse</i>	82
Table 13. <i>Individual methods and categories of pain relief used</i>	85
Table 14. <i>Frequency of type of birth</i>	87
Table 15. <i>Frequency of fulfilment of criteria for PTSD symptomology</i>	89
Table 16. <i>Summary of findings of association for sexual abuse and obstetric outcomes</i>	96
Table 17. <i>Summary of findings for association between sexual abuse and birth experience, birth trauma and postnatal depression</i>	97
Table 18. <i>Data Dictionary</i>	133

List Of Figures

<i>Figure 1.</i> Dynamics of replication of sexual abuse in medical encounters	7
<i>Figure 2.</i> CDC's framework to guide strategies for future research on violence around the time of pregnancy	54
<i>Figure 3.</i> Conceptual framework highlighting PTSD as a factor in studying the relationship between violence trauma and adverse childbearing outcomes....	55
<i>Figure 4.</i> Model for this study	57
<i>Figure 5.</i> Study framework	61
<i>Figure 6.</i> Venn diagram showing frequency of abuse across age groups.....	83
<i>Figure 7.</i> Histogram showing length of labour	86
<i>Figure 8.</i> Histogram of birth experience scores.....	88
<i>Figure 9.</i> Traumatic Event Scale Sum Scores	90
<i>Figure 10.</i> Distribution of length of labour for negative and positive abuse screen.....	92
<i>Figure 11.</i> Distribution of W-DEQ scores for negative and positive abuse screen.....	94
<i>Figure 12.</i> Distribution of TES sum scores for negative and positive abuse screen	95

Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the qualification of any other degree or diploma of a university or other institution of higher learning, except where due acknowledgement is made in the acknowledgements.”

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Ethical approval for this thesis 04/33 was granted by Auckland University of Technology Ethics Committee (AUTEC) on April 19, 2004 (Appendix A).

ABSTRACT

In the past decade there has been growing recognition that a sexual abuse history may manifest during health care examinations. More recently, awareness has been raised about a possible link between a history of sexual abuse and traumatic labour and birth. It is theoretically likely that the intimacy of labour and birth for women with a history of sexual abuse may trigger post-traumatic stress symptomatology.

In this cross sectional study, a survey method was used to establish prevalence of sexual abuse and to measure obstetric outcomes, birth experience and birth trauma in a cohort of women who have recently given birth and to test whether there are associations between sexual abuse and birth outcomes. Eighty-five women whose 3½ to 5 year old children attend kindergarten participated.

Lifetime sexual abuse was found to be a common experience for study participants. One out of every three women disclosed an experience of sexual abuse in her lifetime. A history of sexual abuse was not associated with adverse labour and birth outcomes, however women with a positive sexual abuse history were more likely to report postnatal depression. A quarter of the women had PTSD symptoms but overall, women had positive birth experiences and felt well supported. Many women are able to overcome traumatic abuse experiences and successfully cope with birth, an event that may potentially replicate the dynamics of sexual abuse. Further research is needed to identify women who may be at high risk for traumatic birth experiences. Undertaking screening for sexual abuse in the antenatal period in a safe environment may provide reassurance for women and enable identification of those women at high risk for abuse related traumatic birth experiences.

CHAPTER 1

INTRODUCTION AND OVERVIEW

This thesis explores sexual abuse and birth, and possible associations between these two experiences, both of which are common for women in New Zealand. In 2001, one in five women reported at least one experience of sexual abuse or assault since the age of seventeen (Morris & Reilly, 2003). Sexual abuse is a common experience for women around the world. International figures for lifetime experience of sexual abuse or assault range from 19% to 62% (Bohn, 2003; Cloutier, Martin, & Poole, 2002; Koss & Gidycz, 1987; Peschers et al., 2003; Satin, Ramin, Paicurich, Millman, & Wendel, 1992; Wyatt, 1985).

In the course of my Master's programme I undertook a presentation relating to "a consumer perspective of midwifery". I chose the subject of intimate examinations, as I felt the perspective of such a procedure would differ greatly between midwives, for whom this would be a commonly undertaken practice, and women, for most of whom it would be unfamiliar. As I reviewed the relevant literature, I became aware that intimate examinations appeared to be most invasive for women who had experienced sexual abuse. I also found evidence that for some women vaginal examinations during labour had been distressing, traumatic and abuse memory provoking. I presented my findings to an audience of my peers and midwifery students and was concerned at the shocked response to sexual abuse prevalence rates and generally how little seemed to be known about the subject of sexual abuse and possible adverse associations with the birth process. I felt this to be a very important area of midwifery care that appeared little understood and needed further investigation. Over the next three years I continued to

investigate the subject of sexual abuse and possible implications for birth and my studies have culminated in this current thesis.

Sexual abuse has many health sequelae, physical, psychological and spiritual and over the past decade there has been growing recognition of how some of these may manifest in the process of birthing and be associated with traumatic birth experiences (Fergusson, Lynskey, & Horwood, 1996; Parratt, 1994; Rose, 1992; Ullman & Brecklin, 2003). Societal perception of the birth of a child is that of a joyful, positive experience, however for some women, birth is most memorable for being the very opposite. Traumatic experiences of childbirth have been associated with serious psychological disturbances postpartum that can result in consequences such as depression, anxiety, difficulty bonding with the baby, and fear of sexual intimacy (Ballard, Stanley, & Brockington, 1995; Beech & Robinson, 1985; Pantlen & Rohde, 2001). Many of these form part of a post-traumatic stress disorder (PTSD) symptomology profile. This chapter provides background information pertinent to birthing in New Zealand, sexual abuse and introduces possible associations between sexual abuse and adverse birth experience.

Birthing in New Zealand

In New Zealand in 2001, there were 55,799 births, 53,805 (96%) of which occurred in hospitals. Of the births in hospital, 68% were normal births, 10% assisted births (forceps, suction cap) and 22% were births by caesarean section (Ministry of Health, 2003). Under the maternity arrangements in New Zealand, women choose a lead maternity carer (LMC) who will be responsible for providing and co-ordinating maternity care, and attending labour and birth. The LMC can be a midwife (independent or hospital based), a general practitioner, an obstetrician or a hospital team. The choice

depends to some extent on where women live, as the full range of options is not available in every area. In 2001, 69% of women were registered with midwives as their LMC at time of birth, 13% with general practitioners, and 16% with obstetricians. Data from the MOH report on maternity 2000 and 2001 (Ministry of Health, 2003) shows that midwives are more likely to be the LMC with whom women first register. Obstetric or medical complications may sometimes necessitate transfer of care to a specialist. Choices for place of birth include a private home, or hospital or birthing centre with or without specialist services.

The experience of giving birth is commonly perceived as a positive experience that is empowering and joyful. One book offering advice and guidance for birthing women describes the moment of birth, “Your feeling of release as your baby’s body finally slithers out will be followed by a feeling of exhilaration as you greet your baby for the first time” (Stoppard, 1998, p.51). After the birth, the joy continues, “In the hours after birth you will probably find it impossible to fall asleep and need to bask in the ‘afterglow’ of the birth...”(Balaskas, 1989, p.149). For some women, however, giving birth is a traumatic event that can have far reaching negative effects.

My daughter is 10 months old. The days since she was born have been like a rollercoaster ride that has only just ended. The ride was so frightening that I seriously doubted my ability to survive...I felt so anxious that I could barely breathe, and any reminder of my pregnancy or birth felt like a giant wave knocking me off my feet and leaving me gasping for air. (Retrieved 25 September 2004 from www.tabs.org.nz)

There has been some exploration of associations between sexual abuse and traumatic birth and adverse outcomes, an introduction to which follows later in this chapter. The next section provides some background information about sexual abuse.

Sexual Abuse

The World Report on Violence and Health (Krug et al., 2002) defines sexual violence as “any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic a person’s sexuality, using coercion, threats of harm or physical force, by any person regardless of relationship to the victim, in any setting, including but not limited to home and work” (p.149). Data in the same report suggests that one in five women may experience sexual violence by an intimate partner in their lifetime (Krug et al., 2002). This prevalence rate does not include abuse perpetrated by non-partners such as other relatives, acquaintances or strangers nor does it include sexual abuse suffered in childhood. Repeatedly quoted estimates of the experience of sexual abuse by children is 1 in 3 or 1 in 4 (Briere & Elliot, 2003; Finklehor, Hotaling, Lewis, & Smith, 1990; Mazza, Dennerstein, & Ryan, 1996; Russell, 1983; Seng & Petersen, 1995). In the New Zealand National Survey of Crime Victims (2001), 19% of women reported one or more incidents of sexual interference or assault (Morris & Reilly, 2003). Accuracy of figures citing sexual violence are questionable due to inability to assume complete disclosure from all participants, however, there is an underlying assumption that quoted prevalence figures are underestimates (Fergusson, Horwood, & Lynskey, 1997; Russell, 1983).

Factors that relate to sexual abuse are extensive and are enveloped in societal environment, attitudes, beliefs, and individual behaviours (Fergusson et al., 1997; Krug et al., 2002). Sexual abuse is frequently not a discrete experience. There is strong evidence for childhood sexual abuse (CSA) as a predictor for adult sexual revictimisation of women (Neumann, Houskamp, Pollock, & Briere, 1996) and sexual abuse also commonly occurs within a context of domestic violence that also includes psychological and physical abuse. It has been found that 45% of physically abused

women are also forced to have sex with their intimate partner (Campbell, 1989; Eby, Campbell, Sullivan, & Davidson, 1995).

The effects of sexual violence, both long and short term, are extensive and include anxiety, depression, chronic medical conditions (e.g. hypertension, diabetes, heart problems, ulcers), and alcohol and substance abuse (Fergusson et al., 1996; Ullman & Brecklin, 2003). There appears to be a common hypothesis that there are associations between effects and frequency, duration and severity of abuse; age at start of abuse; and relationship to perpetrator. For example, in a study exploring relationships between childhood sexual abuse (CSA) and a range of adverse adult outcomes such as domestic violence, mental health problems and sexual problems, Fleming (1999) found that women who had experienced childhood sexual abuse involving intercourse were most vulnerable to negative outcomes. However, associations such as these are not conclusive (Neumann et al., 1996).

The effects resulting from sexual abuse can be separated into categories of psychological, physical, social, somatic and obstetric/gynaecological. The boundaries between these effects often blur, overlapping each other and precipitating others, with many factors such as social disadvantage and family instability confounding the effects still further. It is impossible therefore to identify a “sexual abuse effect syndrome”; rather, what becomes apparent is a multifaceted model of traumatisation (Fergusson et al., 1997; Kendall-Tackett, Meyer-Williams, & Finkelhor, 1993; Paolucci, Genius, & Violato, 2001; Wilsnack, Vogeltanz, Klassen, & Harris, 1997). The focus for this study is on possible effects of sexual abuse on labour and birth. A review of the literature in the next chapter shows that internationally there is little research pertaining to sexual abuse and health effects for birthing. It is only in the past decade that there has been recognition in the literature of the phenomenon of sexual abuse and traumatic birth, the

earliest articles dating from 1992. The next section provides an introduction to this subject.

Sexual Abuse and Traumatic Birth

Experiencing birth as a traumatic event has been associated with a number of factors, such as pain experienced during birth, levels of social support, level of obstetric intervention and dissatisfaction with intrapartum care (care during labour) (Ayers & Pickering, 2001; Soet, Brack, & Dilorio, 2003). Antecedent factors contributing to a traumatic birth experience have been postulated, for example lack of social support and a history of sexual abuse (Soet et al., 2003). Non-research based literature, including anecdotal reports, describe how prior sexual abuse may manifest itself during labour and birth resulting in a birth experienced as traumatic (Christensen, 1992; Holz, 1994; Howarth, 1995; Smith, 1998). For example, one woman related, “ My body began pushing. The pain became so intense that I found myself retreating from my body...My mind was full of the images of the rape I endured when I was two years old, when my mother’s older relative tore me open from the top of my clitoris down to my urethra” (Rose, 1992, p.217). Stories are shared by women who have undergone sexual abuse and traumatic birth, and women and health practitioners, predominantly midwives, offer advice to health providers regarding the necessity to provide sensitive care that will not trigger feelings of or replication of abuse (Christensen, 1992; Holz, 1994; Howarth, 1995; Rose, 1992; Smith, 1998).

Kitzinger (1992) was one of the first health professionals to broach the subject of medical replication of abuse of previously traumatised patients. She describes the plight of women with no or little control within their medical environment feeling victimised. Narrative from women makes explicit the experience of re-enactment of abuse:

“Another woman, whose father used to tie her up before sexually assaulting her, described how she flipped during labour. ‘I was spread eagled on the bed, my arms tied to drips, someone fiddling down there - it brought back the bondage.’” (p.39).

Kitzinger (1992) suggests how the dynamics of sexual abuse could be reproduced in medical encounters combining nakedness, touching, intrusion, pain and powerlessness (Figure 1).

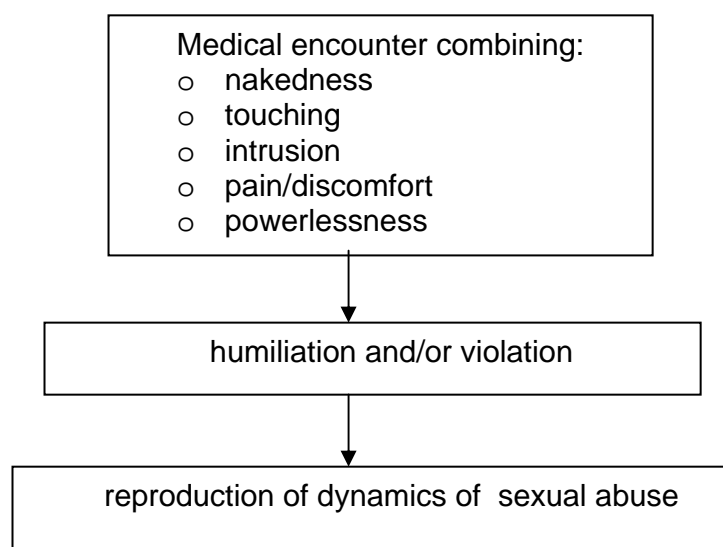


Figure 1. Dynamics of replication of sexual abuse in medical encounters (Kitzinger, 1992).

Kitzinger (1990) suggests that provocation of feelings of humiliation and violation from such encounters lead to reproduction of sexual abuse. It would be possible however to evoke the dynamics of sexual abuse both through medical encounters and the birth process without necessarily identifying these feelings of humiliation and violation. Indeed, there may be a host of feelings provoked.

The issue of revictimisation of women in the medical encounter is addressed in a variety of health fields. For example, Gallop and McCay (1999) in a qualitative study of women hospitalised in a psychiatric setting, explore the experience of hospitalisation

and restraint of women who have a history of childhood sexual abuse. The women describe the restraint as terrifying, rendering them powerless and provoking memories of abuse. Draucker and Spradlin (2001) discuss the issue of invasive and restrictive procedures for orthopaedic patients. They acknowledge that there may be particular problems with pain tolerance, trust and control for sexual abuse survivors.

Divan (1996) highlighted issues surrounding sexuality and its relationship to midwifery practice and described the rituals apparent during the process of vaginal examination of women in labour. Covering women from abdomen to knee to preserve dignity may imply a sexually intimate act by blurring the sexual reality of the vaginal examination. The nature of childbirth itself has a high likelihood of triggering traumatic memory. Physical feelings of vaginal and perineal tissues stretching and pain experienced as the baby passes through the birth canal may provoke memories of similar feelings experienced during abuse. Intimate examination, commonly undertaken by health professionals during labour and birth is another potential trigger for recall of abuse memory.

Labour may be the first time a woman has any experience that provokes traumatic memories. Women may not disclose an abusive history during the antenatal period because they may not actually have a conscious memory of it, they mistrust health professionals, or there may be a lack of opportunity to disclose (Seng & Petersen, 1995; Smith, 1998). Traumatic abuse memories may not be recalled for many years. In a prospective study, Williams (1994) found that 49 of 129 (38%) women with previously documented histories of abuse did not appear to recall their victimisation when interviewed seventeen years post-abuse. Studies have found that age and length of time that trauma was suffered are related to amnesia for the traumatic experience. The younger the trauma sufferer and the longer the trauma is suffered, the higher the

likelihood of amnesia (Briere & Conte, 1993; van der Kolk, 1996). Childhood sexual abuse has been found to result in the highest degree of total amnesia (van der Kolk, 1996).

There is a potential myriad of abuse reproducing events for women in labour and birth particularly in a medical setting and the likely occurrence of some or all of the five factors identified by Kitzinger (1992) (nakedness, touching, intrusion, pain and powerlessness) is high. These may include exposure of genitalia and exposed and vulnerable body position such as lying flat on their back, on side facing away or legs spread wide apart; invasive procedures such as intravenous cannulation and bladder catheterisation; intimate examinations with associated lack of eye contact or covering with sheets; unintentional vocalised infantilisation or use of coercive language; feelings of powerlessness and lack of control due to limited mobility associated with attachment to intravenous lines or fetal heart recording monitors; pain; fear; unfamiliar/medical environment and non participative decision making.

Psychological as well as physical triggers for traumatic memory recall may also occur during labour and birth, for example not feeling in control may replicate a lack of control felt during an experience of sexual abuse. Within an environment with so many potential triggers for abuse memory, the possibility of extreme responses to abuse replicating experiences is particularly relevant. Such responses may include symptoms of post-traumatic stress disorder such as flashbacks or dissociation (detaching mind from physical experience). This response is acknowledged in the literature and is introduced in the following section.

Sexual Abuse, Traumatic Birth and Post-traumatic Stress Disorder

In exploration of traumatic birth, there has been recognition that some of the behaviours and symptoms that abuse survivors displayed during birth are similar to

those shown by sufferers of post-traumatic stress disorder (PTSD) such as war veterans and rape victims (Ballard, Stanley & Brockington, 1995). In *The Diagnostic and Statistical Manual of Mental Disorders (1994)* PTSD is classified as an anxiety disorder for which specific criteria for diagnosis have been defined by the American Psychiatric Association (1995) and is a well acknowledged consequence of sexual abuse (Herman, 1992).

It is only recently that PTSD and its symptomology have been specifically linked to childbirth. Symptoms of PTSD include flashbacks, emotional numbing and hyperarousal (eg insomnia, agitation). Obstetric outcomes such as type of birth, use of anaesthesia and level of medical intervention have been reported in the traumatic birth literature (Benedict, Paine, Paine, Brandt, & Stallings, 1999; Creedy, Shochet, & Horsfall, 2000). In general, the traumatic birth literature looks to characteristics of the pregnancy, labour and birth that result in a trauma response. However, it is theoretically likely that the intimacy of labour and birth for women with a history of sexual abuse may trigger traumatic memory and possibly cause PTSD symptomology, a theory considered by Soet et al (1993) and Menage (1993). An overview of the history and development of diagnosis of PTSD, research exploring associations between PTSD and birth, and research exploring sexual abuse and birth are presented in Chapter 2.

The World Health Organisation has highlighted the gap that exists between the service needs experienced by victims of sexual violence and the existing level of health services provided by most countries (Krug et al., 2002). This gap certainly exists for sexual abuse survivors giving birth as evidenced by the literature review in this thesis. The need for knowledge to assist in narrowing this gap led specifically to the aim and significance for this study.

Aim of the Study

In this study I will explore the relationship between sexual abuse and birth outcomes to provide new knowledge to better meet the needs of birthing women. Specifically, the study will establish prevalence of sexual abuse and birth outcomes and to test for associations between them.

Significance of the Study

Sexual assault is common in New Zealand. One in five women reported a sexually abusive experience since the age of 17 years in the New Zealand Survey of Crime Victims (Morris & Reilly, 2003). An estimate of the sexual abuse of girls in New Zealand is 1 in 5 to 1 in 7 (Fergusson et al., 1996; Morris & Reilly, 2003). This study will provide important information for midwives and other health workers by providing a measure of the burden of sexual abuse and associated birth trauma, thus urging future work to develop an appropriate midwifery and health care professional response. This research addresses interpersonal violence in Aotearoa, reduction of which is a key objective of the New Zealand Health Strategy (Fanslow, 2002).

Structure of the Thesis

Chapter 1 has identified the topics of exploration for this study: sexual abuse and birthing. Birth in New Zealand, sexual abuse, traumatic birth and PTSD have been introduced and the aim and significance of the study have been stated.

Chapter 2 presents a critical review of the literature exploring definitions and prevalence of sexual abuse, and specifically describes the literature that reports effects of sexual abuse linked with obstetrics. Of these effects, post-traumatic stress disorder is addressed in detail with provision of an overview of PTSD history and diagnosis. A

summary of this chapter identifies research issues not yet addressed, the consequent aim of this study and the conceptual framework in which this study is situated.

Chapter 3 describes the research questions and study framework, design and methods. The topic of this study is acknowledged as sensitive and accordingly research of sensitive topics is briefly discussed at the beginning of this chapter. There follows a description of the study framework, design, setting, participants, instruments, procedure, and data analysis. Ethical and sociocultural considerations complete the chapter.

Chapter 4 presents the findings of the study. The prevalence of sexual abuse and the obstetric outcomes, birth experience and birth trauma results are described. Findings of the tests for associations between sexual abuse and these three variables are given.

Chapter 5 discusses the findings of this study and the strengths and limitations. The significance of the study and implications for practice and future research are described and conclusions are drawn.

CHAPTER 2

LITERATURE REVIEW

Introduction

Chapter 1 established the commonality of sexual abuse as an experience for women and the recognition that a sexually abusive history may manifest itself during labour and birth. The purpose of this literature review is to explore definitions and prevalence of sexual abuse and to critically describe the literature that reports effects of sexual abuse linked with labour and birth, specifically PTSD, providing an overview of PTSD history and diagnosis. Research studies that have explored how the effects of sexual abuse can directly affect childbirth labour and birth experience outcomes will be critiqued. In conclusion, the review will identify research needs.

Databases searched for this literature review were Medline, Cinahl, Psych INFO, Ebscohost and Blackwell Synergy. Keywords and phrases used were: sexual abuse; sexual assault; birth; post-traumatic stress disorder; trauma. This review has covered articles exploring and describing the effects of sexual abuse that are research-based, with no restriction on definitions. Additional literature was identified from reference lists and by searching through Te Puna library catalogue.

Definition of Sexual Abuse

There are varying definitions of sexual abuse in the literature, a point highlighted by Paolucci, Genuis and Violato (2001) in their meta-analysis of the published research on the effects of childhood sexual abuse. They describe the range of victimisation found within definitions that extends from severe abuse only, including acts of intercourse and penetration, to a wider scope inclusive of abusive acts such as

witnessing sexual acts and fondling. Concern that the lack of a consistent definition of abuse influences comparisons across studies has been voiced in the literature (Browne & Finkelhor, 1986), although an empirical meta-analysis by Jumper (1995) found no evidence that a definition of abuse as contact, non-contact or consensual affected effect size estimates. Sexual abuse was defined in the New Zealand National Survey of Crime Victims, 2001 by asking the question: “Has anyone ever sexually interfered with or sexually assaulted you or made you carry out any sexual activity when you did not want to?” (Morris & Reilly, 2003).

For this review, studies with a wide range of sexual abuse definitions were included, but female genital mutilation (FGM), a practice prevalent in Africa, was excluded. Although FGM is outside the scope of the reviewed literature, it is acknowledged as an important issue as a form of sexual abuse (World Health Organisation, 1977). Although both men and women experience sexual abuse, due to the focus on the effect of sexual abuse on birth, the literature review and thesis focuses on women.

Prevalence of Sexual Abuse

Along with the difference in definitions across studies, the referent time period also differs. Sexual abuse may be reported for lifetime, adulthood or childhood. Table 1 shows a range of studies that have measured prevalence of sexual abuse and identifies participants, method of data collection, response rates, abuse prevalence and definitions of sexual abuse used. Non-disclosure is also an issue in considering sexual abuse prevalence estimates. There is an underlying assumption that quoted prevalence figures are underestimates (Fergusson et al., 1997; Russell, 1983). In the case of sexual abuse, non-disclosure may be attributed to an inability to recall traumatic abuse memory. In a

Table 1. *Studies Exploring Prevalence of Sexual Abuse.*

Study title	Country and participants	Method	Response rate	Prevalence	Definition of sexual abuse
The sexual abuse of Afro-American and white American women in childhood. (Wyatt, 1985)	USA Stratified probability sample of Afro American and white American women.	Telephone interviews	26.5% n=248	62% prevalence rate of at least one incident of sexual abuse prior to age 18.	Before age 18; Any contact of a sexual nature ranging from those involving a non body contact to those involving body contact such as fondling, intercourse and oral sex.
The scope of rape: Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students (Koss, Gidycz, & Wisniewski, 1987).	USA Men and women in higher education institutions	Self-reporting questionnaire in classroom setting	98.5% n =6159	27.5% women experienced attempted or completed rape since age 14	An act that met legal definitions of rape in relevant US state (which included attempts).

Table 1. (*continued*)

Study title	Country and participants	Method	Response rate	Prevalence	Definition of sexual abuse
Prevalence of childhood sexual abuse experiences in a community sample of women (Martin, Mullen, Romans & Herbison, 1993)	NZ Random sample of women from four electoral rolls in Otago area of South Island of NZ	Postal questionnaires presented as women's health study	73% for women under 65 yrs of age n=3000	32% prevalence of childhood sexual abuse before age 16	Unwanted sexual behaviours ranging from non-contact to intercourse.
Physical and Sexual Abuse on a Middle Class Obstetric Population (Smikle, Sorem, Satin & Hankins, (1996)	USA Women attending prenatal classes at a military service medical centre.	Self-reporting questionnaire to be completed at the class and left in locked boxes.	68% n= 563	9% lifetime prevalence of sexual abuse	Forced fondling or penile, digital or foreign object penetration of the mouth, vagina or rectum.
Physical, sexual and emotional violence against women: a general-based prevalence study (Mazza, Dennerstein, & Ryan, 1996).	Australia Women age 18+ attending 15 GP practices for a consultation	Self-reporting questionnaire to be completed at the time or posted later	72% (18% returned by post) n = 2181	39% lifetime prevalence of sexual abuse	Rape, attempted rape, unwanted sexual advances, violence or threat of with fear of sexual assault, narrow miss from sexual assault. If at age 16 or less, classified as childhood abuse.

Table 1. (*continued*)

Study title	Country and participants	Method	Response rate	Prevalence	Definition of sexual abuse
Prevalence of childhood sexual abuse in a community sample of Australian women (Fleming, 1996)	Australia Women randomly selected from Australian federal electoral roles	Postal questionnaire	65% n=710	20% prevalence of sexual abuse before age 17	All experiences of sexual contact before age 12 irrespective of consent & between 12-16yrs that were unwanted or distressing
Prevalence of physical and sexual abuse before and during pregnancy Swedish couples (Hedin, Grimstad, Moller, Schei & Janson, 1999)	Sweden Women attending any of three antenatal clinics in Goteberg	Face to face interviews	Not given n = 206	3% prevalence rate of sexual violence during pregnancy.	In preceding year and during pregnancy, Severity of Violence Against Women Scale. Not defined in study description
Lifetime prevalence of sexual abuse in a Swedish pregnant population (Stenson, Lundh, Nordstrom & Wenke, 2000).	Sweden All women registered at antenatal clinics in Uppsala	Face to face interviews	93% n = 1038	8% lifetime prevalence of sexual abuse	Abuse Assessment Screen. Have you ever been forced to participate in or subjected to sexual activities against your will?

Table 1. (*continued*)

Study title	Country and participants	Method	Response rate	Prevalence	Definition of sexual abuse
Sexual assault among North Carolina women: prevalence and health risk factors (Cloutier, Martin & Poole, 2002).	USA Part of the North Carolina BRFSS interview.	Telephone interviews	96% n = 2109	19% lifetime prevalence of sexual assault	Anyone ever forced or tried to force to engage in unwanted sexual activity
Lifetime physical and sexual abuse, substance abuse, depression and suicide attempts among Native American women (Bohn, 2003)	USA Native American women	Face to face interviews	n =30	>50% lifetime prevalence of sexual abuse	

study exploring abuse memory recall, 38% of women with previously documented histories of sexual abuse did not recall their victimisation seventeen years post-abuse (Williams, 1994)

Lifetime and Adulthood Prevalence of Sexual Abuse

In North Carolina, U.S., a lifetime prevalence sexual assault rate of 19% was reported based on a telephone survey of 2109 non-institutionalised women (Cloutier et al., 2002). An Australian study surveying 2178 women attending 15 GP practices in Melbourne, found 13% had been raped or suffered attempted rape in their adulthood (Mazza et al., 1996). The NZ National Survey of Crime Victims (2001) differentiates between lifetime sexual interference or assault and sexual interference or assault before age 17 (Table 2) (Morris & Reilly, 2003). The proportion of women reporting sexual interference or sexual assault was considerably higher than for men across all age groups. Among women, lifetime experience of sexual interference/sexual assault was reported by 19% and assault before age 17 was reported by 14%. A greater proportion of NZ European/European and Maori women disclosed sexual interference or sexual assault than Pacific women, perhaps attributable to a greater reluctance to disclose among Pacific women. Prevalence rates were significantly higher for younger age groups (17-39 years). Victims in the younger age groups were more likely to report multiple forms of sexual violence. This is relevant when investigating the impact of sexual abuse on childbirth as most women presenting for obstetric care during pregnancy and birth fall into the 17 to 39 years age categories.

Table 2. *Lifetime experience of sexual interference or sexual assault and experience of sexual interference or sexual assault before the age of 17 (NZ National Survey of Crime Victims, 2001)*

		Lifetime (%)	Before age 17 (%)
Gender	Female	19.3	13.5
	Male	4.9	3.8
Age/female	15 and 16	14.6	13.4
	17-24	25.6	14.3
	25-39	22.3	17.3
	40-59	21.4	14.5
	60+	9.2	6.6
Ethnicity/female	NZ European/European	20.4	14.4
	Maori	23.4	18.4
	Pacific	6.5	5.3
	Other	8.7	2.4

Prevalence of Childhood Sexual Abuse

Repeatedly quoted estimations of the experience of sexual abuse in childhood is one in three or one in four (Finkelhor et al., 1990; Mazza et al., 1996; Russell, 1983; Seng & Petersen, 1995). Finkelhor (1994) reviewed prevalence rates identified in studies of large non-clinical populations of women in not less than 19 countries and found a range of 2% to 45%. He noted that methodological and definitional differences defy comparative analysis of these international studies, but that the results were consistent in identifying childhood sexual abuse as a significant international problem. New Zealand prevalence statistics are corroborative. A University of Otago study involving a sample of 3000 women found nearly one in three women (32%) reported having one or more unwanted sexual experiences before age 16 years (Anderson, Martin, Mullen, Romans, & Herbison, 1993). Fergusson, Lynskey and Horwood (1996) following a cohort of 1000 children born in Christchurch, found that 17% of girls were sexually abused before the age of 16 and severe abusive experiences involving penetration and intercourse occurred in 6% of girls. In the 2001 NZ National Survey of Crime Victims 14% of girls aged under 17 years reported sexual interference or assault (Morris & Reilly, 2003).

Revictimisation

Research has shown that women who are sexually abused in childhood are at increased risk of abuse as adults. This was the finding in all of the studies reviewed and in a meta analysis by Neumann, Houskamp Pollock and Briere (1996). Wyatt, Guthrie and Notgrass (1992) and Russell (1986) found 56% to 60% of women who had been sexually abused in childhood reported experiences of rape or attempted rape as adults compared to 21% to 35% of non-abused women. Prospective and retrospective studies with large samples have been undertaken since the mid 1980s in different countries,

presenting strong evidence for childhood sexual abuse as a predictor for adult sexual revictimisation of women. Health professionals, recognising the potential impact of repeated trauma, should consider the possibility that a woman presenting with adult sexual abuse may also have been sexually abused as a child.

Prevalence of Adulthood Sexual Abuse in Pregnancy

Research findings report that sexual violence is common during pregnancy and it is two to eight times more likely that the reported perpetrator will be a partner as opposed to a stranger (Finkelhor & Yllo, 1985 cited in Eby et al., 1995). In a study assessing for abuse during pregnancy, one in six (17%) women reported physical or sexual abuse (discrete prevalence of sexual abuse was not reported) (McFarlane, Parker, Soeken, & Bullock, 1992). Sexual violence occurring during pregnancy needs to be addressed within a broader context of domestic violence. Investigations have found that 40% to 45% of all battered women are forced to have sex by their male partners (Campbell, 1989; Campbell & Soeken, 1999). Some research suggests that domestic violence starts or increases in pregnancy (Mezey, 1997).

Effects of Sexual Abuse

The database searches that were undertaken resulted in identification of over 1000 articles about the effects of sexual abuse. The following paragraphs describe and critique the research designs that were used to investigate the effects of sexual abuse. The effects of sexual abuse are then identified and categorised.

Type of Research Designs

The majority of studies exploring the effects of sexual abuse used a quantitative research design. The underlying positivist methodology for this type of design assumes that there exists an objective reality external to human observation; this traditional scientific

approach is concerned with defining and discovering the causes of phenomena (Polit & Hungler, 1997). Within the quantitative paradigm there lie differing methods of research, with varying degrees of control to maximise validity. The studies exploring the effects of sexual abuse mostly used a non-experimental approach. This was appropriate as the variable of sexual abuse cannot be manipulated. An inherent methodological difficulty of non-experimental design is its inability to attribute causation. Polit and Hungler (1997) explain Lazarsfeld's three criteria that must be fulfilled for causality: a cause must precede an effect in time; there must be an empirical relationship between the presumed cause and presumed effect, and the relationship cannot be explained as being due to the influence of a third variable. A non-experimental study design does not fulfil all of these criteria, with a resulting inability to define causation.

In addition, most of the studies used a retrospective cross sectional design, collecting risk and outcome data at one point in time. Neumann, Houskamp, Pollock and Briere (1996) highlight how bias can be introduced to retrospective studies due to effects of amnesia, psychological distress and selective non-disclosure, a limitation most likely magnified when studying the traumatic event of sexual abuse.

Only one study used a prospective, longitudinal study design, examining a presumed cause and looking forwards to a presumed effect. Fergusson, Horwood and Lynskey (1996) produced a series of articles describing their research involving a birth cohort of more than 1000 New Zealand children to age 18. The use of a longitudinal, prospective research design provides more compelling evidence of causal association. Across the studies, data collection was undertaken through use of interviews, self-report surveys and chart reviews. Many of the studies used inferential statistical analysis, most often correlation. The use of correlation led to the identification of a number of

interrelationships among variables such as childhood sexual abuse, adolescent sexual behaviours and sexual revictimisation, and childhood and family factors including social disadvantage and impaired parent child relationships (Fergusson et al., 1997).

Identified Effects of Sexual Abuse

The vast literature exploring the effects of sexual abuse can be divided into three categories according to the time frame of the abuse or assault: adult sexual abuse, childhood sexual abuse and lifetime sexual abuse. Across the three categories, most common was research related to childhood sexual abuse (over 600 articles). Within each of the three categories was a diverse range of studies covering many different sequelae. These have been separated into five main “effect” groups: psychological, physical, social, somatic and obstetric/gynaecological. Table 3 lists effects within the groups in descending order of most frequently studied. Amongst the groups, articles relating to psychological effects were the most common.

A small body of literature regarding somatic effects, describing physical symptomology with an unfounded medical physical cause, was interwoven through the literature of effects of sexual abuse. Much of the literature associated with somatisation is included in the psychological effects category, and there seems to be an overlapping between the somatic, psychological and physical effects of sexual abuse. Common somatic symptoms associated with sexual abuse include chronic pelvic pain, irritable bowel syndrome and sleep disorders. McCauley et al (1997) found an association between sexual abuse and somatisation in a cross sectional, self-administered survey of 1931 women. Somatisation is in itself a disorder applied to abuse survivors (Herman, 1992). According to psychologist Denise Gelinas, quoted by Herman (1992), those who report with such complaints come with “a disguised presentation” with the presenting somatic symptoms covering an underlying trauma history. Seemingly in accordance

Table 3. *Effects of sexual abuse*

Psychological	Somatic	Physical	Social	Obstetric/Gynaecological
General psychopathology	Tension headaches	Tension headaches	Conduct/behaviour: sexual promiscuity, risky sexual behaviour,	Adolescent pregnancy
Anxiety	GI disturbances	Developmental: Neurological	Sexual revictimisation	Low infant birth weight
Fears	Abdominal, back, pelvic pain	Hormonal mediation	Alcohol/substance abuse	Sexually transmitted diseases
Depression	Tremors			Maternal obstetric complications
Eating disorders: anorexia nervosa, bulimia	Nausea			Preterm labour
Post Traumatic Stress Disorder	Choking sensations			
Psychological development: Impairment, delay, dissociation	Vertigo			
Fatigue				
Self harm, suicide				

with this theory, the studies in the literature exploring somatisation were often not presented directly as effects of sexual abuse, rather, the symptomology or disorder was investigated and sexual abuse arose as a predictor. According to Herman (1992) the diagnosis of somatic illness is loaded with prejudice. Those diagnosed can be considered to have suspect credibility and to be manipulative and malingering. Gelinas (1983) wrote of patients and therapists failing to recognise the link between the presenting problem and a history of chronic trauma.

The obstetric and gynaecological effects of sexual abuse cited in the literature are predominantly physical (low birth weight) or behavioural (adolescent pregnancy) and will be discussed briefly in this paragraph. More detailed discussion around the possible impact of sexual abuse on labour and birth is presented later in this chapter. Obstetric and gynaecological effects were the least often reported amongst the categories in Table 3, with adolescent pregnancy and low birth weight the two most common effects studied within the category. Two New Zealand studies found that exposure to childhood sexual abuse increased sexual risks in adolescence (e.g. higher rates of pregnancy, unprotected intercourse) in association with concurrent factors such as pre-existing psychosocial family problems (Fergusson et al., 1997; Romans, Martin, & Morris, 1997). Childhood sexual abuse did not independently predict adolescent pregnancy except when child sexual abuse was of the most intrusive type, that is, intercourse (Romans et al., 1997). In a US study, Stevens-Simon and McAnarney (1994) found childhood sexual abuse to be a common antecedent of adolescent pregnancy. Sexual abuse was reported as being significantly related to low birth weight in three studies (Curry, 1998; Parker, 1994; Stevens-Simon & McAnarney, 1994). However, two studies do not distinguish between physical and sexual abuse and one only investigated adolescent pregnancy. Murphy (2001) undertook a meta-analysis of

abuse as a risk factor for low birth weight, finding a significant association between abuse and low birth weight, but again there was no difference distinguished between physical and sexual abuse. Only Grimstad and Schei (1999) specifically isolated sexual abuse, yet found no association between childhood sexual abuse and low birth weight. Again, what became evident from these studies was a compounding effect of variables that may be contributory to low birth weight such as smoking and poor past obstetric histories with a possible, though most likely small effect of sexual abuse.

Meta analyses of Effects of Sexual Abuse

There were four meta-analyses that empirically analysed published research on the effects of childhood sexual abuse (see Table 4). No meta-analyses investigating lifetime or adult sexual assault were found. Inclusion criteria were similar for all four studies, but only Paolucci et al (2001) described an inclusion criterion of a minimum study sample size, which was 12. Paolucci et al (2001) stated an aim to overcome Jumper's 1995 study limitations described as: study number inclusion; narrow outcome variables, and long term outcome review only. Whilst apparently achieving this, Paolucci et al (2001) subsequently defined their own limitations attributing them to definition variation. However, Jumper (1995) found that definition of childhood sexual abuse made no statistically significant effect on comparison across studies. Kendall-Tackett et al (1993) undertook a descriptive meta-analysis, sometimes called a qualitative meta-analysis. They were one of the earlier reviews of childhood sexual abuse effects that demonstrated a higher psychological symptomology sexually abused children and suggested the absence of a specific syndrome and no single traumatising process. Neumann et al (1996) recommended future researchers examine potential moderators more routinely, including demographic characteristics. Neumann et al (1996) acknowledge a common clinical hypothesis that the familial context of child

Table 4. *Meta-analyses of the effects of sexual abuse.*

Study title	Authors (year)	Outcomes	Findings
Impact of Sexual Abuse on Children: A Review and Synthesis of Recent Empirical Studies.	Kendall-Tackett, Meyer Williams, Finkelhor (1993)	Symptomology association	Abused children had more psychological and behavioural symptoms than nonabused. No specific syndrome for childhood sexual abuse effects and no single traumatising process.
A meta analysis of the relationship of child sexual abuse to adult psychological adjustment.	Jumper (1995)	Psychological symptomology, depression, self esteem	Statistically significant relationships between the experience of childhood sexual abuse and subsequent difficulties in psychological adjustment.
The long term sequelae of childhood sexual abuse in women: A meta analytic review.	Neumann, Houskamp, Pollock and Briere (1996)	Magnitudes and moderators of the relationship between CSA and psychological and behavioural disturbances in women	Strong associations between childhood sexual abuse and psychological problems amongst clinical populations.
A meta-analysis on the published research of the effects of child sexual abuse.	Paolucci, Genius & Violato (2001)	PTSD, depression, suicide, sexual promiscuity, victim-perpetrator cycle, poor academic performance	Evidence confirming the link between childhood sexual abuse and negative short and long term effect on development. Support for a multifaceted model of traumatisation.

Note. CSA: childhood sexual abuse; PTSD: post-traumatic stress disorder.

abuse is important. They suggest that intrafamilial and extrafamilial sexual abuse effects may differ and abuse by more intimately related perpetrators is more harmful. They emphasise the inability, even from a meta-analysis, to determine causation when analysing data that is retrospective and when there is the possibility of confounding.

Despite limitations, there are compelling findings in all of the meta-analyses associating childhood sexual abuse with a variety of psychological phenomena. Methodological difficulties are agreed to be complicating, but overall sexual abuse is found to be associated with a negative impact upon the survivor and the sequelae are complex and diverse. There are multiple factors that affect outcomes and there is no definable “syndrome” that develops from childhood sexual abuse. Three of the four reviewed meta analyses (Kendall-Tackett et al, 1993; Neumann et al, 1996; Paolucci et al, 2001) specified post-traumatic stress disorder (PTSD) as a common effect associated with childhood sexual abuse.

History of Trauma Research and Post Traumatic Stress Disorder

The development of a diagnosis of PTSD has been explored for this review with a brief description of the history of trauma research, mainly using Herman (1992) for reference. Herman (1992) is frequently cited through trauma theory literature, identifying the link between suffering of war veterans and victims of political terror and suffering of abused women from a feminist perspective. The relevance of PTSD with regard to the impact of sexual abuse on childbirth will become evident when symptoms and effects are later described.

History of Trauma Research

Jean-Martin Charcot, a French neurologist, is the patriarch of the study of hysteria. He studied the symptoms that resembled neurological damage including

amnesias and motor paralysis. These are typical of symptoms that today are identified with categorisation of post-traumatic stress disorder. Charcot's devotees, Pierre Janet and Sigmund Freud with Joseph Breuer, were investigative rivals aiming to demonstrate the cause of hysteria. In the mid 1890s, they arrived independently at the same finding that an altered state of consciousness following unbearable emotional reactions to traumatic events induced hysteria symptoms. Janet called the alteration "dissociation", Freud and Breuer "double consciousness". The discovery by these investigators that alleviation of hysterical symptoms could be achieved by recovery and verbalisation of traumatic memories is the basis of modern psychotherapy (Herman, 1992).

Freud subsequently uncovered major traumatic sexual abuse events that had been concealed prior to onset of hysterical symptoms triggered by apparently trivial events. He published *The Aetiology of Hysteria*, theorising that premature sexual experience preceded hysteria. Silence greeted the report. The idea that sexual abuse could be occurring among the proletariat of Paris and respectable bourgeois families of Vienna was not considered credible and the traumatic theory of hysteria was denied and buried. Freud himself recanted, claiming that women had been fantasising and their claims of CSA were untrue (Herman, 1992).

The First and Second World Wars forced the reality of psychological trauma onto the stage again. Hysterical symptoms presenting as "shell shock" were acknowledged as psychological trauma symptoms. The nature of the condition was broadly debated, but after interest was generated during both the wars, it waned post war. After the first world war a young American psychiatrist, Abraham Kardiner, pursued his interest in war trauma and eventually developed clinical outlines of a "traumatic syndrome", labelling it physioneurosis (Resick, 2001).

It was the Vietnam War years that precipitated consistent investigation into the effects of trauma. “Rap groups” organised by antiwar veterans were informal, predominantly non-medical self help groups that addressed combat trauma (Herman, 1992). Consequently, the Veterans Administration commissioned studies that collectively demonstrated the post-traumatic syndrome and its association to combat (Resick, 2001). The women’s liberation movement of the 1970s stimulated recognition that it was not most commonly combat victims who suffered from PTSD, but abused civilian women. “Consciousness raising” among females paralleled rap groups of war veterans and in 1971 New York radical feminists were the first to speak out publicly on rape. The mid 1970s saw women provoke an uncovering of sexual assault issues and a confirmation of the previously denied reality that sexual assault against women and children was indeed horrifyingly common. Burgess and Holmstrom (1974) undertook a study of psychological effects of rape and identified a “rape trauma syndrome”, commenting that some of the symptoms were similar to those described for combat victims (Herman, 1992). In 1980, the American Psychiatric Association included a new category of mental disorder named PTSD that was acknowledged as the singular trauma suffered by abused women, children and combat veterans alike.

Debate continues to the present day regarding “hysteria” and particularly its association with being a gender-related female disorder. Feminist analysis critiques this association, which, it is argued, dates back to the ancient world when hysteria-like symptoms were connected to women’s bodies, particularly the womb and sexual dissatisfaction (Borossa, 2001). Bordo (1993) discusses the continuum between female disorder and “normal feminine practice” (p.168). The nineteenth century male physicians viewed hysteria as being an exaggeration of what were, stereotypically, feminine traits, such as nervous faints, emotional displays, sexual passivity and

irrationality. The feminine construct of the era was one of labile emotionality and mystique. Twentieth century feminists have questioned the hysteric reaction in terms of negativity or positivity. Was it representative of victimisation or of rebellion and embodied protestation within oppressive and patriarchal societies? (Bordo, 1993; Borossa, 2001). Consideration of such questioning and also of the consciousness-raising about sexual assault against females allows acknowledgement of the use of feminism as an appropriate theoretical framework throughout much of the literature around PTSD and trauma.

Diagnosis of Post-traumatic Stress Disorder

In the 1980s, the most common symptoms in the literature of traumatic neuroses were listed by an informal network of health professionals that had developed from concern of lack of recognition of trauma effect highlighted by the war veteran rap groups. The literature included work about holocaust survivors, burn victims, and Kardiner's work (van der Kolk, 1996). A classification system was developed for inclusion of PTSD as a category for mental disorder. This new system closely mirrored Kardiner's clinical outlines developed in 1941. The inclusion of PTSD as a diagnostic category in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-111) occurred after much consultation of the American Psychiatric Association (APA). The new diagnosis of PTSD covered all trauma syndromes, i.e. rape trauma syndrome, battered woman syndrome, abused child syndrome and Vietnam Veterans syndrome (Resick, 2001). At that time there was a different classification for dissociative disorders. In DSM-IV (1994), PTSD remains an anxiety disorder despite an advisory subcommittee advising that it should be placed in a new stress response category (van der Kolk, 1996). There is recognition that there is an overlap between anxiety and

dissociation in relation to trauma and there is ongoing debate concerning the classification of PTSD as an anxiety or dissociative disorder.

In DSM-IV, there are six criteria that must be met to qualify for a diagnosis of PTSD (Table 5). Debate continues to centre on the existing diagnostic criteria for PTSD. According to Herman (1992), they are “derived mainly from survivors of circumscribed traumatic events, based on the prototypes of combat, disaster and rape” (p.119). What the criteria do not accurately define are “the manifestations of prolonged or repeated trauma that adversely affect identity, personality and relationship development” (p.119). Herman (1992) suggests a complex post-traumatic stress disorder that would more adequately address the spectrum of conditions that can occur in response to trauma as opposed to a single disorder of PTSD. Other psychiatrists and clinicians would agree. Terr (1991) described a Type I and Type II trauma, precipitated by a singular traumatic event or prolonged repeated trauma respectively. Herman cites Goodwin (1990) who invented the acronym FEARS for simple PTSD and BAD FEARS for severe PTSD seen in childhood abuse survivors.

Matsakis (1996) emphasises the difficulty in attempting to make trauma survivors fit into ill-fitting boxes that do not accommodate their range of symptoms. Repeated trauma may also present as a combination of separate experiences of sexual abuse in childhood, adolescence and/or as an adult. Women who have suffered childhood sexual abuse are not only more predisposed to suffer repeated sexual assault in their lives, they are also more likely to suffer domestic violence in adulthood, commonly perpetrated by an intimate partner (Coid et al, 2001; DiLillo, Guiffre & Tremblay 2001; Fleming, Mullen & Sibthorpe, 1999). Consequently, there is a population of women who have suffered traumatic event(s) as children and who continue to suffer trauma or traumatic events in their lives. In these situations, there may not be clear demarcation of

Table 5. *The DSM-IV (1994) Diagnostic criteria for post-traumatic stress disorder.*

	Criterion	Definition
Trauma	A	You must have been exposed to a traumatic event involving actual or threatened death or injury during which you respond with panic, horror and feelings of helplessness.
Symptoms	B	You re-experience the trauma in the form of dreams, flashbacks, intrusive memories or unrest at being in situations that remind you of the original trauma
	C	You show evidence of avoidance behaviour – a numbing of emotions and reduced interest in others and the outside world
	D	You experience physiological hyper arousal as evidenced by insomnia, agitation, irritability or outbursts of rage
Duration and intensity	E	The symptoms in Criteria B, C, or D persist for at least one month
	F	The symptoms have significantly affected your social or vocational abilities or other important area of your life.

PTSD symptomology, as the feelings and fears elicited by current abuse may overlap with those from prior abuse in childhood (Stark & Flitcraft, 1996). It appears that there is the possibility that help and support may not be offered appropriately when it is needed. This may occur due to categorisation being inaccessible to abuse survivors who do not “fit” because they have diverse symptomology, for example, dissociation with some PTSD symptoms or PTSD symptoms and depression attributable to current intimate partner violence. Would a person who fits all the criteria and is diagnosed with PTSD be at an advantage when accessing treatment compared with someone who meets only some of the criteria and presents with numerous disorders? Herman (1992) also discusses the negative connotations of carrying a diagnosis such as borderline personality disorder, when in fact this may be part of a complex PTSD. Van der Kolk (1996) states that the uniqueness and variety of traumatic responses has been lost and maintains that continuing research will attain specification of both the unique features of and variety of forms of traumatic stress response.

From a review of this literature, there appears to be a need to recognise and acknowledge the diverse and complex effects of trauma by creating less structured PTSD criteria and by focusing on symptomology. The *Diagnostic and Statistical Manual of Mental Disorders* has been revised once, in 1994, since the inclusion of PTSD. The most significant revision was the alteration regarding the traumatic event criterion (criterion A). It changed from the event having had to have been “outside the normal range of experience” to one that the individual believed endangered his/her life or that a serious threat existed to the physical integrity of themselves or others. This revision does not address the concerns of Herman and colleagues regarding the range of conditions that may occur as trauma responses. The remaining five PTSD criteria (B to

F) have remained unchanged since the inception of PTSD in 1990 into the *Diagnostic and Statistical Manual of Mental Disorders*. As shown in Table 5, these criteria relate to symptomology (B, C, and D) and duration and intensity of symptoms (E, F). PTSD symptomology has been categorised according to three specific groups of symptoms commonly labelled intrusion (criteria B), constriction (criteria C) and hyperarousal (criteria D).

Intrusion (criterion B)

Traumatic memories are not encoded like ordinary memories in a linguistic, linear fashion; memory storage in the brain is affected by endogenous stress hormone secretion (Zerbe, 1999). Massive secretion of these hormones caused by trauma, particularly norepinephrine, results in partial or total amnesia. Trauma is thought to affect the hippocampus causing loss of verbal memory (Resick, 2001). Broca's area in the brain that is responsible for language and communication switches off when traumatic memories are activated, hence an inability to verbalise traumatic memory (van der Kolk, 1996). Memories remain in the form of images and sensations. Herman (1992) hypothesises that this abnormal storage of memory results in breakthrough of traumatic memory into consciousness with flashbacks, intrusive images or dreams. A sufferer may feel as though they are re-experiencing the trauma, may feel pain or inexplicable suffering of medical problems. Reliving the trauma causes very intense emotional distress; therefore traumatised people will consciously attempt to avoid this happening. There may be conscious or unconscious re-enactment of the trauma by children or adults. The reason for this is debated amongst theorists, but suggestions include that they are spontaneous attempts to integrate the traumatic event, or attempts to act out a fantasy version of events with an alternative, preferred outcome (Herman, 1992).

Constriction (criterion C)

Constriction is a term used to describe an altered state of consciousness utilised to escape from a traumatic situation that may include partial or total amnesia. Other terms used to describe this are avoidance, emotional numbing (Matsakis, 1996) or dissociation (van der Kolk, 1995). Those experiencing it may feel as though they are observing events from outside their body, may have altered time and sensation perceptions, or may feel blank and not react at all. This capacity to enter into a trance like state is not usually a conscious choice and is believed to be partly biological in origin, caused by a disruption in the limbic structure in the brain (van der Kolk, 1992; Zerbe, 1999). It is “a mechanism to reduce perception of pain during acute trauma” (Herman, 1992, p.46). Although this may appear to be an effective defence, it avoids the integration of the traumatic event into ordinary consciousness and can potentially cause restrictions of day to day living as trauma survivors struggle, either consciously or not, to suppress trauma related thoughts and avoid situations that could bring back traumatic feelings. The retrieval of traumatic memory is not consciously controlled and this aspect of the phenomena is particularly relevant for childbirth as experiences during birth experience could precipitate memory retrieval.

Hyperarousal (criterion D)

Hyperarousal is symptomatically recognised by an exaggerated startle response, hypervigilance, irritability or anger outbursts and difficulty falling or staying asleep (Matsakis, 1996). When experiencing trauma-generating emotions such as horror and fear, the body responds with a physiological reaction from the adrenal glands that secrete adrenaline precipitating the fight or flight response. Alternatively, if noradrenaline is secreted, the body may freeze, causing temporary inability to move or react. Studies have found that traumatised abused children and adults are subsequently

less able to self regulate such physiological arousal, resulting in extreme and highly intensified reactions (van der Kolk, Roth, Pelcovitz & Mandel, 1993 cited in Van Der Kolk, 1996). The functioning of the sympathetic nervous system seems to be altered by the suffering of traumatic events (Kolb & Multiplassi, 1982 cited in Herman, 1992).

PTSD symptoms of intrusion, constriction and hyperarousal are not present all of the time. Memories of traumatic events are activated by emotions and sensations stimulated by a current event. Something occurs to stimulate activation of a specific part of the information memory network and this results in retrieval of the associated sensations of particular traumatic experiences (van der Kolk, 1996). This precipitating event is called a trigger.

Triggers

When emotional functioning may have been quite normal previously, a trigger can provoke unexpected emotions and sensations such as fear, anger and helplessness, the same as experienced when suffering sexual abuse. This response to triggers is not purely emotional. The brain is unable to distinguish between a real threat and one stored in the mind. The memory pathways are stimulated, and so too are the adrenal glands causing the fight or flight response as described earlier (van der Kolk, McFarlane, & Weisaeth, 1996). If there has been amnesia of the original trauma, the reactions to triggers may themselves be traumatising, causing confusion and fear. Women may feel overwhelmed by emotions and feelings they do not comprehend.

Trauma, PTSD and Childbirth

Researchers have only recently explored the occurrence of PTSD after childbirth and have approached the subject from a perspective of the labour and birth process itself being the traumatic experience rather than antenatal factors such as CSA. This section

reviews studies that have reported on the occurrence of PTSD after childbirth with no specific focus on sexual abuse. Since the 1990s, there has been a slowly increasing interest in the possible association between a traumatic birth experience and PTSD, but only a small number of studies have been identified from the last decade (see Table 6). In these studies, prevalence of PTSD after childbirth, defined by the fulfilment of DSM IV criteria for PTSD, ranged from 0.9% to 6%. Although a diagnosis of PTSD following childbirth does not appear to be common, two studies found PTSD symptomology present in nearly one third (30% and 33%) of women following childbirth, indicating a high likelihood of psychological disturbance for mothers following childbirth (Creedy et al, 2000; Soet et al, 2003). These findings would appear to support Herman's suggestion for recognising an additional category for criteria of symptoms for PTSD (see p.33).

The studies of PTSD after childbirth have been undertaken from either a psychiatric or medical perspective and often used a quantitative retrospective study design. Wijma, Soderquist and Wijma (2002) and Seng (2002), researchers responsible for much of the research around PTSD and childbirth, have used both quantitative and qualitative research methods. Findings among studies by these researchers were similar, identifying an association between labour and birth that was perceived as traumatic and subsequent psychological disturbance.

Ballard, Stanley and Brockington (1995) describe case reports of women presenting with a symptom profile suggestive of PTSD commencing within 48 hours of childbirth. There was also associated depressive illness in each case. However the study consisted of only four case reports, with no investigation of confounding variables that may have been associated with development of a PTSD symptomology. Pantlen and

Table 6. *Prevalence of post-traumatic stress disorder and symptoms*

Author	Study Title	Country	Method and response rate	Sample	Findings
Menage (1993)	Post-Traumatic Stress Disorder in women who have undergone obstetric and/or gynaecological procedures.	England	Postal questionnaire	n=500	6% met criteria for PTSD profile (DSM III).
Ballard, Stanley, & Brockington (1995)	Post-Traumatic Stress Disorder (PTSD) after childbirth.	England	Case reports	n=4	Symptoms suggestive of PTSD commenced within 48 hours of childbirth.
Fones (1996)	Post-traumatic stress disorder occurring after painful childbirth.	Singapore	Case report	n= 1	Uncontrolled pain in childbirth may lead to PTSD.
Wijma, Soderquist, & Wijma (1997)	Post-Traumatic Stress Disorder after childbirth: A cross section study.	Sweden	Postal questionnaire (80%)	n=1640	1.7% met criteria for PTSD (DSM IV).

Note. Menage (1993) includes procedures during labour and birth.

Table 6. (*continued*)

Author	Study Title	Country	Method and response rate	Sample	Findings
Creedy, Shochet & Horsfall (2000)	Childbirth and the Development of Acute Trauma Symptoms; Incidence and Contributing Factors.	Australia	Questionnaire and interviews	n=499	5.6% met criteria for PTSD (DSM IV). 33% PTSD symptoms
Czarnocka & Slade (2000)	Prevalence and predictors of post-traumatic stress symptoms following childbirth.	England	Postal questionnaire (75%)	n=264	3% met criteria for PTSD (DSM IV). 24% PTSD symptoms.
Pantlen & Rohde (2001)	Psychologic effects of traumatic live deliveries.	Germany	Questionnaire and interviews (43%)	n=424	0.94% met criteria for PTSD. 17.2% reported anxiety, 12% mental reexperience of delivery.
Ayers & Pickering (2001)	Do women get post-traumatic stress disorder as a result of childbirth? A prospective of study incidence.	England	Postal questionnaire (75%)	n=289	2.8% met criteria for PTSD at 6 weeks post partum.

Table 6. (*continued*)

Author	Study Title	Country	Method and response rate	Sample	Findings
Soderquist, Wijma & Wijma (2002)	Traumatic stress after childbirth: The role of obstetric variables.	Sweden Sweden	Postal questionnaire (80%)	n=1550 n=53	Emergency caesarean section and instrumental delivery associated with PTSD symptoms.
Ryding, Persson, Onwell & Kvist (2003)	An evaluation of midwives' counselling of pregnant women in fear of childbirth		Postal questionnaire (85%)		2% women reported possible PTSD.
Soet, Brack & Dilorio (2003)	Prevalence and Predictors of Women's Experience of Psychological Trauma During Childbirth.	USA	Questionnaire and interviews (92%)	n=103	1.9% met criteria for PTSD. 30.1% PTSD symptoms,

Rohde (2001) and Wijma, Soderquist and Wijma (1997) offered more compelling evidence by using larger samples and correlational design. Predictors for the development of PTSD symptoms are given by many of the studies, but a lack of uniformity in instrument usage for assessment of childbirth experience has resulted in a broad range of findings.

Most of the studies examining PTSD and childbirth looked at event characteristics such as pain, medical intervention, and interaction with carers to identify predictors. Creedy et al (2000) also examined the contribution of antenatal variables such as preparation for childbirth, partner support and obstetric risk, finding none were contributory. Predictors identified within individual studies include degree and length of pain experienced, feeling a lack of control, feelings of powerlessness and nulliparity (having never had a baby before). Czarnocka and Slade (2000) found low levels of support from partner and staff and low perceived control in labour were related to post traumatic stress symptoms. However, there is some disparity between studies about predictors, for example, Creedy et al (2000) did not find any statistical significance between nulliparous (women having their first baby) and multiparous (women having subsequent babies) women in relation to trauma symptoms whereas Wijma et al (1997) did. Type of birth was not related to post traumatic stress symptoms according to Czarnocka and Slade (2000), but was related according to Wijma et al (1997).

There are certain findings from the studies about PTSD and childbirth that concur, identifying level of satisfaction with care, level of medical intervention and level of social support as predictive of the development of psychological disturbance. Despite finding that medical intervention of instrumental delivery or caesarean section was significantly related to PTSD symptomology, Wijma et al (2002)

emphasise the clinical importance of their finding that most women with PTSD symptomology were found in the normal vaginal delivery group. Thus, it cannot be concluded from the research to date that women who undergo instrumental delivery or caesarean sections are more likely to develop PTSD symptomology.

Only one study investigated antecedent factors that included history of sexual trauma (Soet et al, 2003). Regression analysis showed history of sexual trauma to be the most statistically significant predictor for a perception of childbirth as traumatic but the study had a very small number of women who reported past sexual trauma, therefore findings should be interpreted with caution. Further research in this subject is needed to corroborate these findings. Ayers and Pickering (2001) are the only researchers to control for prior antenatal PTSD disorder by eliminating all women who met PTSD criteria at 36 weeks gestation and thus offer the most compelling evidence for a traumatic birth experience causing psychological trauma. However, they fail to identify the theoretical possibility that the childbirth process precipitated PTSD symptoms in response to a previously experienced trauma, the memories of which were stimulated by the birth process. Hence, there may have been amnesia of childhood sexual abuse and an absence of PTSD symptomology until events during birth triggered the abuse memories and provoked a psychological response. Kennedy and Mac Donald (2002) present a case study describing an altered consciousness experience in childbirth. Following this experience, the mother disclosed previous suffering during her life when she was a refugee. Previous trauma included betrayal, loss and a traumatic birth experience. In this case, it was this prior experience that was the primary trauma. In a study measuring PTSD in women following obstetric and gynaecological procedures, Menage (1993) found 30% of women with PTSD had a history of sexual abuse and suggested this group of women may be

“particularly susceptible to obstetric and gynaecological trauma because of their past experiences” (p.227).

The complexities for health care providers inherent in addressing issues around care of women who have been abused and have adverse psychological effects are apparent through the literature. Abuse amnesia, lack of disclosure, lack of knowledge amongst health practitioners and multiple aspects of PTSD are but a few of the issues that combine to make implementation and evaluation of intervention challenging. The field of research regarding sexual abuse history and related trauma in childbirth remains largely unexplored. There is however a small amount of literature directly addressing this topic. The following section describes that literature.

Sexual Abuse and Traumatic Birth Experiences

There have been seven studies specifically addressing the issue of how sexual abuse may affect the labour and birth experience. Of the seven research studies four used quantitative research methods (Table 7). Benedict, Paine, Brandt and Stallings (1999) investigated associations between childhood sexual abuse and selected outcomes including maternal labour and delivery factors (i.e. type of delivery, length of labour, anaesthesia and labour complications). While no statistically significant associations were found, some observed differences were felt to be worthy of further investigation. Noted was a trend indicative of abused women being more likely to require caesarean section for failure to progress in labour in comparison with unabused women who are more likely to require caesarean section for fetal malposition or maternal condition.

Further study would be appropriate to corroborate findings, as a qualitative

Table 7. *Research studies investigating the effect of sexual abuse on labour and birth.*

Study title	Authors	Country	Study design Sample size	Findings
Child Sexual Abuse Victimization and later Sequelae During Pregnancy and Childbirth	Jacobs (1992)	USA	Case control study n=28	A history of child sexual abuse was significantly correlated with increased perceived stresses in pregnancies, longer labours, higher birth weights, longer pregnancies and more medical problems.
Labor experiences of childhood sexual abuse survivors	Rhodes & Hutchinson (1994)	USA	Ethnography	Ethnographic method. Linked CSA and childbirth, and labour styles with PTSD.
The experience of childbirth for survivors of incest	Parratt (1994)	Australia	Phenomenology	Phenomenological method. Individualised memories of abuse may be provoked by childbirth. Variable effect on birth experience.
Helping survivors of sexual abuse through labour	Burian (1995)	USA	Interviews, thematic analysis	Control most important issue for women, corroborates four ways in which survivors maintain control in the literature.
Child abuse and its effects on birth	Tallman & Hering (1998)	USA	Chart review n=400	Childhood sexual abuse associated with adverse birth outcomes.

Table 7. (*continued*)

Study title	Authors	Country	Study design Sample size	Findings
The association of childhood sexual abuse with depressive symptoms during pregnancy and selected pregnancy outcomes.	Benedict, Paine, Brandt, & Stallings (1999)	USA	Survey n=357	Sexual abuse associated with depressive symptomology, not associated with selected obstetric outcomes
Pregnancy and delivery for women with a history child sexual abuse	Grimstad & Schei (1999)	Norway	Case control study n=173	Sexual abuse not associated with outcome of low birth weight or mode of birth (forceps, suction or caesarean).

study by Parratt (1994) describes an opposing scenario with nine out of nineteen births involving quickly progressing and shorter labours for abuse survivors, and suggests a possible influence of dissociation during labour. Grimstad and Schei (1999) explored associations between child sexual abuse and pregnancy and delivery outcomes. Delivery outcomes were birth weight and mode of delivery. No significant association was found for either outcome. This is contrary to findings of Curry et al (1998), who explored associations between both physical and sexual abuse and maternal pregnancy complications and birth weight. Curry et al (1998) found a positive relationship between abuse and low birth weight, however physical and sexual abuse were not distinguished. Benedict et al (1999) only included primiparous women (i.e. women having their first baby).

Tallman and Hering (1998) used a retrospective, correlational research study design to explore the relationship between a history of childhood abuse and birth outcomes. The design description is inadequate; failing to define childhood abuse, specify what outcomes were to be explored, and what method of data collection was employed. Although statistically significant associations were reported for intrapartum transportation (transfer to hospital during labour) into hospital, utilisation of pain relief and third trimester change of attendant, there is little specific information and confirmation given for what the authors appear to find the most important associations, that is, transportation to hospital during labour due to failure to progress in labour and subsequent caesarean section rate. There was no control for other variables and the claim that “the above statistics are evidence that a history of trauma can have an adverse effect on birth outcomes” (p.20) would have been more accurate if the word “suggestive” had been used rather than “evidence”. The authors cite no other studies to

support their work and although their findings may be valid, the interpretations and conclusions drawn from those findings are overstated.

Jacobs (1992) also used a retrospective correlational design to explore associations between child sexual abuse and selected outcomes. A sample of 15 women survivors of child sexual abuse and 13 women with no known history of abuse were asked to complete a questionnaire. Jacobs (1992) used three categories for child sexual abuse: victims of child sexual abuse, victims of incestual child sexual abuse and being sexually touched as a child, but there is no specific definition of each category. Although Jacobs (1992) reports that the wording that defined child sexual abuse had a significant effect on correlations, there is no further discussion about whether any individual categories had a more significant effect than any other.

Among significant differences reported by survivors of child sexual abuse were longer labours, more medical problems and a perception of being under more stress during pregnancies. Stressful situations in pregnancies defined by Jacobs (1992) included loss of control issues and revictimisation issues. Examples of comments by participants when referring to stressful situations in pregnancy include “spouse was physically and emotionally abusive” and “rape by spouse”. This emphasises a need to address sexual abuse within the sphere of domestic violence and also not necessarily only as a childhood event. In addition, there may be large differences between maternal and medical definitions and perceptions of labour length, but description of the measure used for length of labour was not given. The sample size in this study was small but this is acknowledged by the author who advises caution when reviewing the results. The study recommends for clinicians to be sensitive to issues that might surface during pregnancy such as fears of loss of control and environmental and interpersonal circumstances that might increase stress and anxiety seem appropriate.

Using qualitative research method, Rhodes and Hutchinson (1994), Burian (1995) and Parratt (1994) purposively selected childhood abuse survivors who reported traumatic birth experiences attributable to the traumatic effect of sexual abuse. Burian (1995) does not describe a research methodology or method of data analysis, though the report is suggestive of a thematic analysis. The lack of description of research methodology and methods undermines the rigour and applicability of the study. Overall, across the three qualitative research studies, four common issues emerged.

Firstly, the issue of control was ubiquitous. The sexual abuse survivors' need to maintain control was identified and the suggested methods used to provide women with control were common to all three studies. These included use of detailed care plans, permission to touch, and choice of environment.

Secondly, the issue of touch triggering abuse memories was discussed in all three studies. Parratt (1994) found that "for some participants touching provoked the recall of a memory of abuse, whereas for others touching or rejection of touch was part of the response to some other, possibly unknown, trigger" (p. 32). Burian (1995) states the importance of health professionals not "to be put off if the woman pulls back slightly or recoils when touched" (p.309) and Rhodes and Hutchinson (1994) recommend care to be taken to obtain permission to touch.

Thirdly, dissociation was a frequently found occurrence during labour and birth for survivors but its effect as positive or negative for the birth experience inconclusive. Parratt (1994) suggests dissociation may be responsible for shorter labours and describes two participants' experience of dissociation as positive. It is suggested this may have been due to amnesia about the abuse at the time of childbirth. Burian (1995) reports sexual abuse survivor descriptions of dissociation experiences during labour and birth as their primary coping response. Recommendations by others that women are

cared for in a manner that brings them back to the present would have to be questioned in light of Parratt's findings (1994). It is conceivable that dissociation contributes to a positive birth experience.

The fourth issue emerging was abuse amnesia, addressed in all three studies, each identifying the difficulty for women when they have feelings of extreme fear and terror provoked and they do not know why. All authors encouraged the health provider to avoid triggering memories by not re-enacting abuse in the way they provide care, and focusing the woman on the reality that she is birthing and not being sexually abused, especially during flashbacks. This may seem contradictory to the discussion about dissociation, but there is a distinction between flashbacks and dissociation. Flashbacks involve involuntary memory recall and feelings of reliving the experience and dissociation involves mental disengagement and avoiding the reliving of experience.

Westerlund (1992) examined the sexual attitudes and practices of women with incest histories. Included in her study is a short section about reproduction, and although not exclusively studying childbirth and incest, some of the findings are relevant and merit notation. Westerlund (1992) used a sample of women from a self-help incest support group. Of 43 women who responded to a mail questionnaire, 80% reported that birth brought up a mixture of feelings related to incestuous experiences and 60% described dissociative experiences during birth. This is the only research study that defines prevalence of these experiences during birth for abuse survivors, but a small sample number and a lack of a comparison group prohibits any finding of significant association.

Literature Review Summary

Across the quantitative studies examining the relationship between sexual abuse and health effects, sample sizes were small, methods poorly described and findings often contradictory. Caution must be exercised when interpreting the findings among so few studies; more studies are needed. Qualitative studies, rather than being population based, focused on birth experiences from clinical samples of women seeking care related to trauma, who had disclosed sexual abuse. Methods were well described and the recommendations arising from each of the qualitative studies were similar: provide sensitive care to women by avoiding care that may replicate sexual abuse and keep women focused on reality during labour and birth. Overall, the literature emphasised that caregivers be aware of the possible manifestations of a history of childhood sexual abuse for women in childbirth.

Overall, there is a paucity of research studies regarding the impact of sexual abuse on childbirth. Although the literature supports an association between sexual abuse and adverse birth outcomes, such an association has not been quantified. There are no studies that have measured sexual abuse prevalence or prevalence of PTSD among women who have given birth in New Zealand. Neither are there any New Zealand studies exploring associations between sexual abuse, birth outcomes and PTSD. This study aims to target these gaps in the literature.

Conceptual Framework

In studying sexual abuse and birth a conceptual framework is useful to identify the variables of interest and the relationship between variables. One such framework found in the literature was developed by Seng (2000). This framework emphasises PTSD as a mediating factor in studying the relationship between violence trauma and

adverse childbearing outcomes and it is within this framework that the current study is situated.

Seng (2002) developed her conceptual framework from one proposed by the Centers for Disease Control and Prevention (CDC) for research on violence occurring around the time of pregnancy (Petersen et al 1997). The CDC's framework resulted from a national conference on violence and reproductive health and has a focus on violence at the time of pregnancy and proposes life events as mediating factors for adverse maternal and fetal outcomes (Figure 2). The framework incorporates five pathways: physiological mechanisms, psychological state, personal disposition, social support/social network and health behaviours that may lead on from trauma (physical injury) and stress caused by violence. Subsequent maternal and fetal outcomes are adverse. PTSD is briefly referred to as a potential factor under "psychological state". Violence is defined within the CDC framework as inclusive of physical, sexual and psychological or emotional or threats of physical or sexual violence that are inflicted around the time of pregnancy. Trauma is used within a medical/obstetric discourse as accidental or inflicted impact on the body resulting in physical injury; stress incorporates life event or daily stress in a broad manner. Adverse maternal and fetal outcomes have no specific definition, to allow for relevant application of outcome variables according to individual research studies, for example birth weight. Seng (2002) has suggested two main adaptations to the CDC framework (Figure 3). Firstly, the definition of violence is expanded to encompass cumulative lifetime history of abuse trauma as well as at the time of pregnancy. Secondly, "PTSD is given greater emphasis as a potential factor contributing to adverse maternity outcomes based on the theoretical proposition that PTSD could be a plausible mechanism for adverse outcomes via both behavioural and neuroendocrine pathways" (p.37). The modified version of the

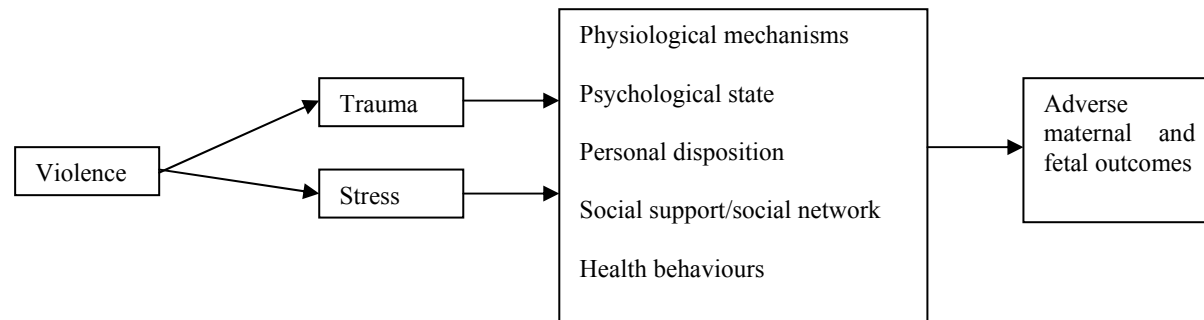


Figure 2. CDC's framework to guide strategies for future research on violence around the time of pregnancy (Peterson et al., 1997)

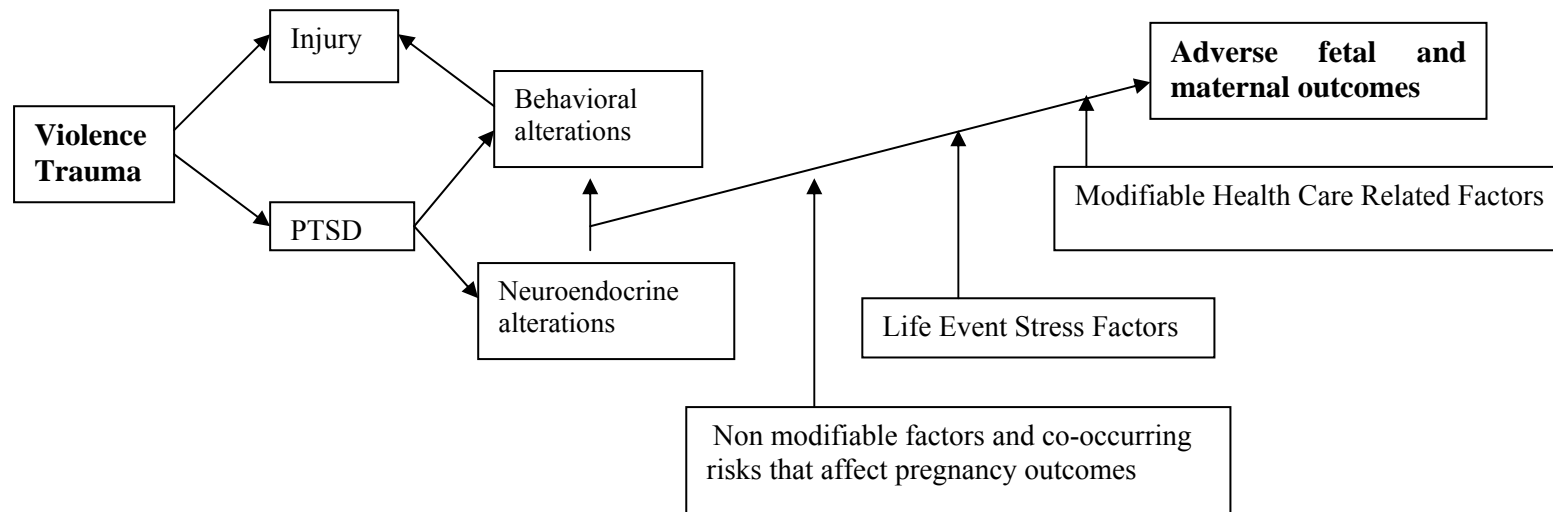


Figure 3. Conceptual framework highlighting PTSD as a factor in studying the relationship between violence trauma and adverse childbearing outcomes (Seng, 2002).

framework reverses the emphasis on distress and proposes consideration of PTSD as the main effect stress factor, alongside physical injury from current violence. This necessitates an alteration in definition of trauma. In the PTSD framework, injury replaces the word trauma and is used to define physical harm from violence, and the term PTSD is used as the main psychological and biobehavioural factor that mediates between violence trauma and poor outcome.

The word trauma is used more broadly to include all the forms of violence that qualify in the APA definition in the Diagnostic Criteria for PTSD (American Psychiatric Association, 1994). In Seng's framework (2002), behavioural alterations incorporate behavioural adaptations as a result of PTSD that increase vulnerability of women. These include mediating factors such as substance abuse, revictimisation and self-harm. Neuroendocrine alterations as mediating factors associated with PTSD are those described earlier on p.36. Nonmodifiable factors and co-occurring risks that affect pregnancy outcomes include medical and obstetric risk and some demographic factors such as age, parity. Life event stress factors include stressors such as negative life events and chronic strains and are inclusive of the moderating effects of social support, personal disposition factors and psychological state. Modifiable health care related factors are those that are affected by the response of health care professionals and institutions.

The model for the current study, placed within the conceptual framework just described, is at its most simple level advancing knowledge around how previous trauma may affect birth (Figure 4). The literature supports an association between trauma and adverse birth outcomes, and Seng's (2002) conceptual framework provides an opportunity to incorporate the effects of past abuse as described in the

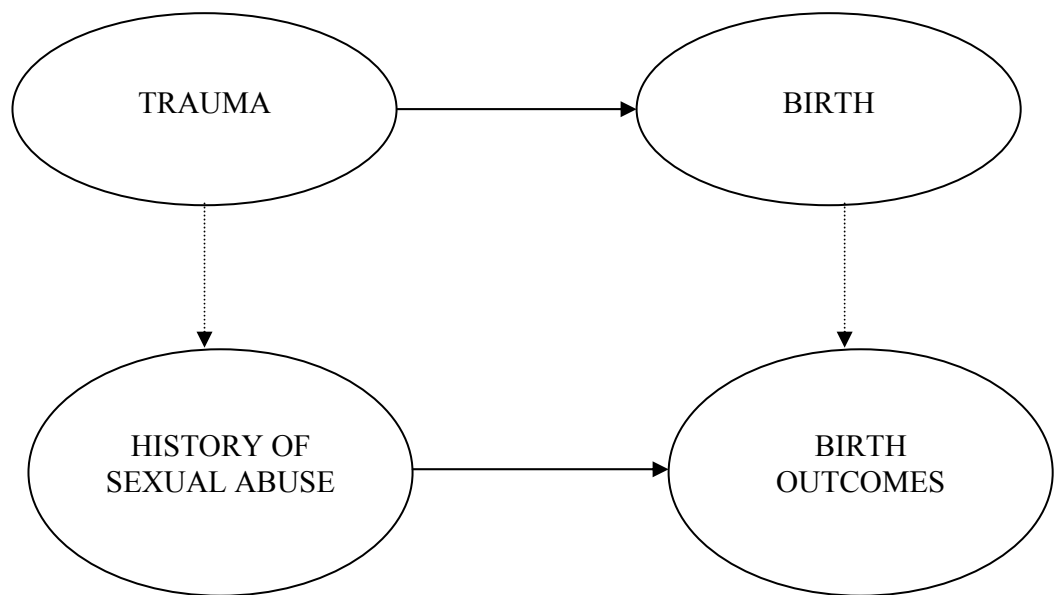


Figure 4. Model for this study

literature as well as current abuse. This is important in consideration of childhood sexual abuse as a significant predictor for adult sexual revictimisation of women. Emphasis of PTSD as a potential mediating factor is concurrent with the findings in this literature review that PTSD is a recognised PTSD common effect of sexual abuse.

This chapter has provided a critical overview of the literature on sexual abuse, birth and PTSD. The literature supports an association between these phenomena, yet no studies have quantified such an association. Therein lies the aim of the current study – to measure prevalence of sexual abuse and birth outcomes and explore associations between them. Finally, a potential framework was presented within which to situate the current study. The next chapter will describe a study design and methods developed to achieve the stated aim.

CHAPTER 3

METHODS

Introduction

This chapter describes the study aim, research questions, methodology, design, methods and ethical and sociocultural considerations. Acknowledging the study topic of sexual abuse as sensitive, this chapter begins with a short discussion about researching sensitive topics. The guiding principles for this study were minimal revictimisation and optimal preservation of emotional and physical safety for participants. To provide guidance and support, the study author formed an advisory group, details of which are provided in the ethical and sociocultural considerations section at the end of this chapter.

Researching Sensitive Topics

Lee and Renzetti (1990) acknowledge that “some kinds of topics potentially involve a level of threat or risk to those studied which renders problematic the collection, holding and/or dissemination of research data” (p.512). Research relating to sexual matters is inevitably sensitive as it intrudes on a subject usually considered private and personal. Potential threats associated with exploration of sexual abuse in research include provocation of emotional distress by recall of traumatic sexual experiences, and fear of the consequences of discovery of disclosure if a woman is suffering ongoing sexual violation from an intimate partner. Researching a sensitive topic requires care to ensure participant and researcher risk is minimised. The difficulties that this may present should not, however, act as a deterrent for researchers. Sieber and Stanley (1988) in Renzetti and Lee (1993) stress the importance for social scientists to approach research with responsibility in a safe

way, not avoiding controversial issues simply because they are so. This chapter continues with description of the study aims, research questions, methodology, study design, setting, participants, sample size, study instrument, recruitment, study procedures, data management and statistical analysis.

Study Aims

This study aims to establish the prevalence of sexual abuse and labour outcomes in a cohort of women who have recently given birth; and to test whether there are associations between sexual abuse and birth outcomes.

Research Questions

The study aims will be achieved by answering the following questions:

1. What is the lifetime prevalence of sexual abuse amongst a group of women who recently gave birth?
2. What were the labour outcomes amongst a group of women who recently gave birth?
3. Is a history of sexual abuse associated with adverse labour outcomes?

Methodology

The methodology underlying this study was a positivist methodology and carried an assumption that reality is objective, objects exist as meaningful entities and have truth and meaning residing in them. Investigation from a positivist paradigm analyses relationships and regularities between factors (Cohen, Manion & Morrison, 2000). The positivist methodology assumes that there is a body of knowledge that can be measured to define and identify patterns that exist in nature.

Study Design

A non-experimental, correlational design was used. Categorised under quantitative research, non-experimental design is appropriate when it would be unethical to manipulate the independent variable or when it is inherently nonmanipulable (Polit & Hungler, 1997). This design enables exploration of a number of interrelationships at one time, therefore cross sectional and contributes to furthering our understanding of how sexual abuse might be associated with birth processes. This cross sectional study was undertaken as a survey. The framework used for this study demonstrating the main concepts and their operationalisation is shown in Figure 4. The independent variable was sexual abuse and the dependent variables, selected based on the literature review included obstetric outcomes, birth experience, birth trauma and postnatal depression. Data were collected by means of a survey using a single anonymous self-reporting questionnaire (see Appendix B). No single existing questionnaire was available that would provide measures to achieve the study aims, therefore the study author developed The Life Experiences Questionnaire (LEQ), that included three existing questionnaires. The LEQ has five sections: obstetric birth outcomes, birth experience, birth trauma, sexual abuse history and demographics. The LEQ is described in detail on p.64.

Sample

Participants were recruited from mothers of children currently attending Kindergarten. Kindergartens provide a large group of women who have given birth in the same time frame (within five years) and can be accessed within a parent

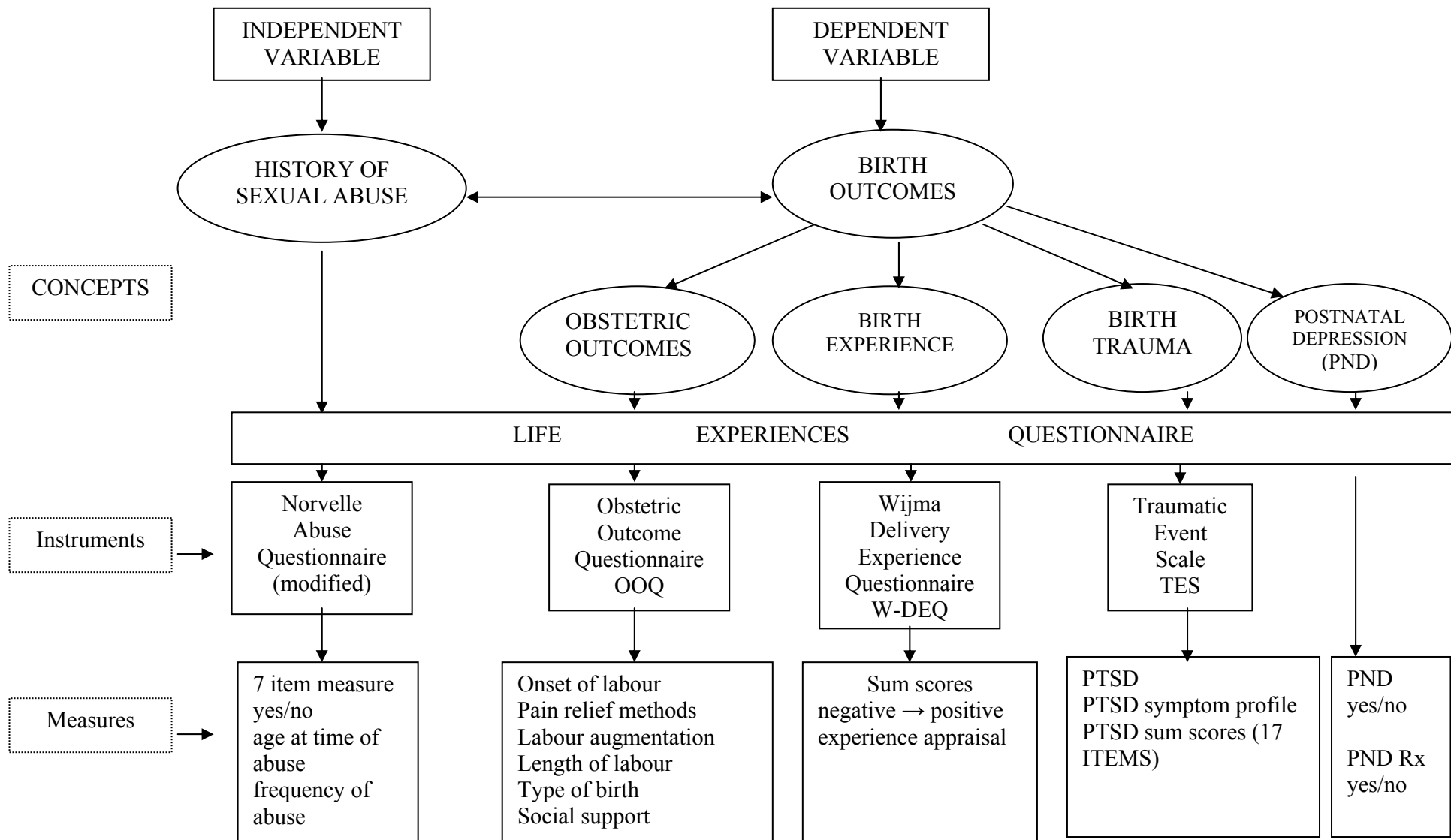


Figure 4. Study framework

organisation, thus increasing study efficiency. Women included in the study had to be the birth mother of a child currently attending one of the selected kindergartens. In addition, women had to be literate in English, as it was beyond the scope of this study to provide for translation.

The time frame of surveying about births occurring between 3½ to 5 years ago was considered appropriate for various reasons. First, deciding not to survey women immediately after birth takes into consideration six to eight weeks for women to recover and adapt to birth and motherhood. Second, Simkin (1991) showed women's memories of childbirth may be quite vivid for many years, thus a time lapse of 3½ to 5 years between birth and recalling birth experience was acceptable for the purposes of this study. Finally there is evidence that adverse birth outcomes such as PTSD symptoms may persist long after birth. In a study measuring post-traumatic stress disorder in women who have undergone obstetric/gynaecological procedures, Menage (1993) reported mean lengths of time since procedure ranging from 3 to 4.6 years for non-abused/abused women, and found a PTSD prevalence rate of 6%, demonstrating the relevance of measuring PTSD symptomology at least up to five years after birth.

Setting

The participants were recruited from five kindergartens run by the Auckland Kindergarten Association (AKA), a charitable trust that has been providing quality early childhood education since 1908. AKA is New Zealand's largest kindergarten association with 105 public kindergartens throughout Auckland, with representation of more than 50 cultures. Individual kindergartens have rolls of 60 or 90 children aged 3½ to 5 years. Support from AKA was obtained (Appendix C) and permission given to approach head teachers of individual kindergartens. Rather than add study complexity, a

group of kindergartens were selected in one Auckland region. Consultation was undertaken with head teachers and staff of individual kindergartens prior to participant recruitment and data collection.

Sample size

Sample size calculations were conducted for hypothesis testing birth outcomes between women with and without a history of sexual abuse using an alpha of .05 and power of .80. Calculations for the outcome variables of interest were based on estimates of clinical significance (effect size) from the literature.

The sample size calculation comparing mean scores for the Traumatic Event Scale was based on mean and standard deviation scores provided by Wijma et al (1997). Unequal groups of abused and non-abused women (1:5), estimated group means of 40.0 and 20.0, and a within group standard deviation of 7.0, requires sample sizes of 2 and 10 (12 total) to give a power of 0.91. For full diagnosis of PTSD, sample sizes of 41 and 205 (total 246) are required. Sample size calculation for the Wijma Delivery Experience Questionnaire was based on mean and standard deviation scores provided by Wijma et al (1997) and Ryding et al (2003). Based on estimated group means of 75.0 and 50.0, a within group standard deviation of 25.0, sample sizes of 10 and 50 (total 60) are required. With lower levels of estimated group means of 60.0 and 40.0, sample sizes of 16 and 80 (total 96) are required. The minimum estimated sample size required among the sample size calculations with the exception of full diagnosis of PTSD was 96. Anticipating a 30% response rate, a minimum sample selection size of 320 was targeted. The roll across the selected five kindergartens was 450.

Study Instrument: The Life Experience Questionnaire (LEQ)

The Life Experiences Questionnaire included five sections: obstetric birth outcomes, birth experience, birth trauma, sexual abuse history and demographics. Women were instructed to answer as they felt able, and reassured that there were no right or wrong answers. The questions about birth trauma and sexual abuse were positioned in later sections so women were not faced with sensitive questions immediately upon commencing. An introductory statement prior to each section informed women about the subject content of the subsequent questions. The following section will describe operationalisation of the five variables of interest, a data dictionary is provided in appendix D.

Obstetric Outcomes Questionnaire (OOQ)

No instrument was available in the literature that measured the required variables for obstetric outcomes; therefore the study author designed the obstetric outcomes questionnaire. The child in kindergarten served as the index case for the purpose of answering the obstetric outcomes questionnaire, rather than other births women may have had. Nine items were used to measure six birth outcome variables: onset of labour, methods of pain relief used, augmentation of labour, type of birth, length of labour and social support (see Table 8). For purposes of analysis, pain relief was categorised as nonpharmacological (water, massage, acupuncture and TENS), analgesic (entonox and injection of painkiller) and anaesthetic (epidural, spinal). An assumption was made that any artificial rupture of membranes (breaking of waters - “ARM”) was undertaken with intent to increase speed of labour. The objective for identifying length of labour was to identify particularly rapid or prolonged labours as

Table 8. *Obstetric outcomes*

Item	Response
Onset of labour	<ul style="list-style-type: none"> ▪ Spontaneous ▪ Induced - prostin <ul style="list-style-type: none"> - breaking waters - IV drip - other ▪ No labour
Type of pain relief used	<ul style="list-style-type: none"> ▪ 8 types of pain relief including none and other
Augmentation of labour	<ul style="list-style-type: none"> ▪ Breaking of waters by artificial means ▪ Drip to make contractions stronger
Length of labour	<ul style="list-style-type: none"> ▪ How long was your labour?
Type of birth	<ul style="list-style-type: none"> ▪ Normal vaginal ▪ Assisted vaginal <ul style="list-style-type: none"> - suction cup - forceps - both ▪ Caesarean section <ul style="list-style-type: none"> -emergency -before labour -during labour -elective
Social support	<p>“I felt well supported during my labour and birth”</p> <p>Partner available during labour and birth</p>

disparity exists in previous studies around this issue for some sexual abuse survivors (Jacobs, 1992; Parratt, 1994). It was assumed that maternal self-report of labour length would enable discernment of rapid or prolonged labours.

Studies have found that perceived higher levels of support from partners/family/friends or health professionals are related to improved birth outcomes (Creedy et al., 2000; Czarnocka & Slade, 2000). However, social support instruments such as The Medical Outcomes Study Social Support Survey (Sherbourne & Stewart, 1991) were considered too lengthy and detailed for this study. The current study assumes social support itself to be the relevant factor, not who is providing the support, therefore identification of who was providing social support was not requested. Midwifery peers reviewed the obstetric outcomes questions and considered the questions to have face validity. No reliability data were available.

Childbirth Experience: Wijma Delivery Experience Questionnaire (W-DEQ)

The Wijma Delivery Experience Questionnaire (W-DEQ) was used to measure birth experience (Wijma, Wijma, & Zar, 1998); see Appendix E for permission to use instrument). The W-DEQ was developed to measure a woman's cognitive appraisal of delivery, asking her about her expectancies before (version A) and experiences after delivery (version B). It is based on a theoretical construct of fear that is aligned with Lazarus' theory. According to Lazarus "appraisal processes are a principal factor in determining how people react to environmental stressors, and thus also determine development and maintenance of anxiety" (Wijma et al., 1998).

The W-DEQ (version B) scale is a self-assessment scale that has 33 items with a six point Likert scale response set ranging from not at all (=0) to extremely (=5). Examples of scale items include, for example,

“How did you experience your labour and delivery as a whole?”

(Extremely fantastic.....not at all fantastic) and

“How did you feel in general during the labour and delivery?”

(Extremely strong.....not at all strong).

Calculation of individual sum scores requires reversal of scoring for 14 positively formulated questions (items 2, 3, 6, 7, 8, 11, 12, 15, 19, 20, 24, 25, 27, 31). Possible scores range from 0-165. A higher score correlates with a more negative appraisal of the birth experience. A score of greater than or equal to 110 is regarded as indicative of a clinical problem, i.e. a very frightening delivery experience (according to personal communication with K Wijma in Ryding, Persson, Onell & Kvist (2003)). Three items in the W-DEQ were considered not applicable to women who have not been through labour. For these three items, in women who did not experience labour, the average item score was imputed. A similar process had been used by Wijma (1998).

Using a sample of 196 antenatal participants and 166 postnatal participants, Wijma et al (1998) reported a Cronbach's alpha of .93 for the W-DEQ. For this study, Cronbach's alpha for the W-DEQ (version B) was 0.947 demonstrating high reliability. Construct validity of the W-DEQ (version B) had been established by correlation with seven other questionnaires. The W-DEQ (version B) correlated with the S-R Inventory of Anxiousness ($r=0.33$) and the Fear Questionnaire ($r=0.33$). Overall, Wijma et al (1998) concluded, “examination of construct validity indicates that it seems to be possible to penetrate a psychological related fear of childbirth by means of the W-DEQ, both before and after delivery, in nulliparous as well as parous women” (p.84). Oweis (2001) states that although the W-DEQ was designed to measure the construct of fear in childbirth, the high correlation between the W-DEQ and the S-R Inventory of Anxiousness supported the use of this instrument to measure perceived stress of

childbirth. For the purposes of the current study, the Wijma Delivery Experience Questionnaire (version B) is used to measure birth experience.

Birth Trauma: Traumatic Event Scale (TES)

Birth trauma was assessed using The Traumatic Event Scale (TES) developed to measure birth associated post-traumatic stress (Wijma, Soderquist, & Wijma, 1997) see Appendix E for permission to use instrument). The TES incorporates all PTSD DSM-IV symptoms and criteria; a diagnosis of PTSD is made if participants meet the same criteria as for PTSD in the DSM-IV (American Psychiatric Association, 1994). Furthermore, the TES allows quantification of the frequency and severity of traumatic stress symptoms (Wijma, Soderquist, Bjorkland, & Wijma, 2000).

As previously outlined in Chapter 2, there are six PTSD criteria, A to E (see Table 5, p34.). For the TES, the trauma event criterion (criterion A) used the four following items:

1. the labour/delivery was a trying experience
2. during labour /delivery I felt physically offended
3. during the labour and delivery I was afraid that I or my baby would be hurt or was going to die
4. during labour/delivery I felt anguished, helpless or horrified.

A four-point response scale ranging from “not at all” (1) to “very much” (4) was provided for each item. To fulfil Criteria A, one or more of the four items must have a value greater than 2.

The next part of the TES corresponds to PTSD symptoms with 17 items incorporating Criteria B, C and D. A four-point response scale is used: “not at all” (1), “rarely” (2), “sometimes” (3), “often” (4). Symptomology is considered “positive” for responses of 3 or 4 (Wijma et al., 1997). Criterion B items (n = 5) relate to re-

experiencing or intrusion symptoms specific to the birth experience. Criterion C items (n = 7) relate to avoidance and numbing, of which four are specifically birth related, for example “I have difficulty remembering frightening parts of the labour/delivery”, and three are more general for example “I feel detached or estranged from other people”. Criterion D items (n = 5) relate to increased arousal, one of which is specifically birth related “I have difficulties falling or staying asleep because thoughts and memories of the labour /delivery disturb me” and four are general, for example “I find it difficult to concentrate”. Criterion E, duration of symptoms, is assessed on the TES on a 13 point scale ranging from less than four weeks to more than 12 months. For this study, duration of symptoms for at least one month was considered diagnostic for PTSD.

Criterion F measures the degree to which a respondent's daily life is affected by the 17 items included for criteria B, C and D. The degree of influence of daily life is measured by a scale ranging from 0 (does not affect me at all) to 10 (affects me very much). A score of 5 or more is considered to meet PTSD diagnosis criteria (Wijma, 1997).

Both PTSD and PTSD symptomology will each be measured in this study. Two measurement methods will be used; these methods are similar to those used by other authors (Creedy et al., 2000; Soet et al., 2003). Firstly, PTSD criteria sum scores will be computed. Secondly, fulfilment of criteria for both a diagnosis of PTSD and for PTSD symptomology will be measured (see Table 9.). A diagnosis of PTSD will be defined as fulfilment all criteria (A to F inclusive). PTSD symptomology will be measured by the fulfilment of criterion A and at least one of the symptom criteria B, C or D. PTSD symptomology is considered positive if symptoms are present on at least one item for Criterion B (intrusion), three items for Criterion C (avoidance /numbing), and two items for Criterion D (hyperarousal).

Table 9. *Criteria description and fulfilment requirements for PTSD and PTSD symptomology.*

Criterion	Description	No. of items	Response scale	Criterion fulfilment	
				Diagnosis of PTSD	PTSD symptomology
A	Traumatic event	4	1-4	Response > or = 2 on one or more items AND	As for diagnosis of PTSD AND
B	Re-experiencing /intrusion symptoms	5	1-4	Response 3 or 4 on one or more items AND	As for diagnosis of PTSD OR
C	Avoidance/numbing	7	1-4	Response 3 or 4 on three or more items AND	As for diagnosis of PTSD OR
D	Hyperarousal	5	1-4	Response 3 or 4 on two or more items AND	As for diagnosis of PTSD
E	Duration of symptoms	1	ordinal scale < 4 weeks to >12 months	Response of at least one month AND	Not measured
F	Degree that daily life is affected	1	10 point Likert scale no affect to very much	Response > or = 5	Not measured

Wijma et al (1997) used Cronbach's alpha and split half technique to estimate reliability for the TES sum score. In a sample of 1640, Cronbach's alpha was 0.84 and split half reliability was 0.90, demonstrating that the TES appears to have high reliability (Wijma et al. 1997). No validity testing was found. For this study, Cronbach's alpha for the TES was 0.866 demonstrating high reliability.

Sexual Abuse: Norvold Abuse Questionnaire (NorAQ)

Sexual abuse was measured using a modified Norvold Abuse Questionnaire (NorAQ) (Wijma B, Schei, & Swahnberg, 2003); see Appendix F for permission to use instrument). The Norvold Abuse Questionnaire (NorAQ) was developed by the Nordic Research Network to measure emotional, physical and sexual abuse (Wijma B et al., 2003). NorAQ has eight parts and consists of 80 questions. The topic of sexual abuse is represented with four questions that encompass abuse relating to non-genital contact, genital contact, penetration and sexual humiliation. Three of the four questions are double-barrelled, for example "Has anybody against your will touched parts of your body other than your genitals in a sexual way or forced you to touch other parts of his or her body in a sexual way?" The answer to this type of question does not clarify to which part the participant is responding. For the purposes of this study, each of the three double-barrelled questions were separated into two questions, resulting in unwanted sexual experience measured by seven dichotomously scored items. Women who answered affirmatively to any of the 7 items were prompted with questions regarding age at time of experience, frequency of abuse, abuse in pregnancy, perpetrator relationship and whether counselling had ever been undertaken. Age categories were modified to those commonly used in research exploring prevalence of sexual abuse

(Peschers et al., 2003). The categories are: as a child (≤ 12 years), as an adolescent (13-17yrs), as an adult (≥ 18 years). Participants were asked to mark all that applied.

In the absence of a frequency of abuse item in the NorAQ, the study author used the frequency response categories from the WHO Multi-Country Study on Women's Health and Domestic Violence Against Women (Jansen & Watts, 2003). The WHO study asks "how many times did this happen" with a three item response scale of "once", "a few times", "many times". Frequency was measured according to how often the type of abuse occurred over all three age categories.

Test-retest reliability of the original NorAQ was assessed by Swahnberg (2003). Kappa values ranged from 0.48 to 0.72 for the sexual abuse questions, indicating fair to good reliability. NorAQ was measured against the NorAQ II; Conflict Tactics Scale (CTS) and Badgley's sexual abuse questionnaire (modified BSAQ) (Leserman, Drossman, & Li, 1995) in interviews with 64 women (33 with and 31 without a history of abuse). Validation measures with BSAQ showed high rates of sensitivity and specificity. Positive and negative predictive values were both 94%. Overall the sexual abuse variables in NorAQ showed good validity.

Postnatal Depression

Postnatal depression (PND) and treatment for postnatal depression were measured as dichotomous variables. An assumption was made that a history of PND and any treatment could have been a confounding factor in the responses on birth trauma.

While this study focused on sexual abuse and birth trauma, postnatal depression, was included on the recommendation of the advisory group as it was considered to be a potentially significant confounding factor. This is supported in the literature by studies finding significant co-occurrence of PTSD and major depression and evidence suggesting common comorbidity of PTSD or PTSD symptoms and postnatal depression

(Ballard et al., 1995; Reynolds, 1997; Shalev et al., 1998). There is considerable symptom overlap between the disorders, for example restricted range of affect and difficulty in staying or falling asleep (Bailham & Joseph, 2003). Postnatal depression and any associated medical treatment were assessed as dichotomous variables.

Demographics

Demographic details that were collected included age of child at kindergarten, Auckland born (yes/no), place of birth, gestation at time of birth and parity. Questions for maternal demographic details were taken from Statistics New Zealand: Te Tari Tatau (2001). Data include age, ethnicity, and level of education. Decile levels of kindergartens are reported to reflect economic status of participants. Soet et al (2003) note observations by Herman (1992) that young, poor, unmarried, minority women may be more likely to experience trauma.

Study Procedures

Preliminary Preparation

The study questionnaire was piloted among nine women, some of whom had a history of sexual abuse, to identify any difficulties completing the questionnaire and to estimate completion time. The maximum time taken was 30 minutes. Item 26 in the W-DEQ was not clearly understood. The wording of this item was altered, with care taken not to change the context. Two respondents felt the sexual abuse questions were unexpected, but the majority had no such concerns and after review of the introductory sections, it was decided not to make any changes. There were no other concerns. The advisory group reviewed the study questionnaire.

Recruitment

An introductory flyer (see appendix G) was used to present the study topic clearly in a non-threatening manner and allow women to decide if they wanted to participate early on before being presented with the specific sexual abuse questions. The flyer, worded informally, had a lay title “Are life experiences linked to labour and birth?” to encourage participation of all women, not just those who had a history of sexual abuse. The flyer invited women to access an information sheet (see appendix H) and questionnaire (the LEQ) in any of three ways, allowing freedom to maintain anonymity and confidentiality. The three ways were: asking a kindergarten teacher, asking to have information left in the notice pocket, or by post. A box was provided in each study site for flyer responses. Teachers at participating kindergartens agreed to hand out information packs.

The researcher distributed flyers over a ten day period in each of the pockets used to pass on notices to caregivers. AKA kindergartens run weekday morning and afternoon sessions. The researcher attended the beginning or end of a morning and afternoon session for each kindergarten to introduce herself and the study, to answer questions and to hand out packs containing information sheets and questionnaires if they were requested.

Women who responded to the flyer were provided with an envelope containing a participant information sheet and the LEQ. The information sheet made more explicit what would be asked in the questionnaire. The LEQ was in a separate sealed envelope to ensure it could not be inadvertently read prior to having an opportunity to read the information sheet. A stamped addressed envelope was provided for women to send completed questionnaires directly back to the researcher. A tea bag was also included to

provide refreshment whilst completing the questionnaire. Participants were given approximately four weeks to return questionnaires.

Data Management

Questionnaire data were entered into a statistical software file (SPSS for Windows version 12.0.) by the researcher. Data were reviewed for accuracy of coding and computer entry by comparing computerized data with the original data for a random sample of 15% of the database. There was a very minimal error rate.

Data were then screened for missing data and outliers, and plausibility of means and standard deviations of domain and sum scores. Items that had not been completed by respondents were entered as missing data. A syntax programme was written to compute sum scores for the TES and W-DEQ (version B). Standardised instructions from the questionnaire developer were followed for computing sum score (adding items 1-33 inclusive) for the W-DEQ following reverse scoring of items. Computed sum score for the TES was achieved by adding items 5 to 17 inclusive. Scores for individual criteria B, C and D on the TES were computed individually to determine fulfilment of PTSD criteria to measure PTSD symptoms.

Statistical analysis

A reliability coefficient (Cronbach's alpha) was used to assess psychometric properties of the TES and W-DEQ. Statistical analysis involved two phases. In Phase 1 the numbers of flyers and questionnaires distributed and returned were collected and response rates calculated, then baseline characteristics of the participants including age of child, place of birth, gestation, parity, age of participant, ethnicity and education were summarised. In Phase II research questions were analysed using descriptive statistics (for example proportions and measures of central tendency) as described in the following paragraphs.

Research question 1: What is the lifetime prevalence of sexual abuse amongst a group of women who recently gave birth?

Women who responded affirmatively to any of the 7 sexual abuse items were considered positive for sexual abuse. Further description of type, age at occurrence, frequency, abuse during pregnancy, perpetrator, counselling and age at first occurrence of abuse are reported as frequencies and percentages.

Research question 2: What were the labour outcomes in a group of women?

Three categories of labour outcomes were analysed: obstetric outcomes, birth experience, and birth trauma. Obstetric outcomes were measured for frequencies and percentages for categorical variables (nominal data). Measures of central tendency and spread with tests for normalcy and outliers were used for continuous data (scale data).

W-DEQ scores were examined to measure birth experience. Increasingly higher sum scores indicate increasingly negative birth experiences. A sum score of greater than 110 was considered a negative birth experience (Wijma, 1997). Sum scores for the W-DEQ (version B) were analysed for measures of central tendency, variability and test for normalcy and outliers. TES sum scores, to measure birth trauma, were analysed for measures of central tendency, variability and test for normalcy and outliers. Categorical variables of PTSD and PTSD symptoms were measured in frequencies and percentages.

Research question 3: Is a history of sexual abuse associated with adverse labour outcomes?

Bivariate inferential statistics were used to measure the extent to which sexual abuse, the independent variable, was related to the dependent variables of obstetric outcomes, birth experience, and birth trauma. Association between abuse history (yes or no) to birth outcomes, birth experience and birth trauma were tested using t test and analysis of variance (ANOVA) for continuous data and chi-square for categorical data.

Ethical considerations

Consultation and Planning

Priority was given to maximising safety and minimising revictimisation and psychological trauma for women. To achieve this, the principal investigator coordinated development of an advisory group at the beginning of planning for this study to inform and provide ongoing support throughout the study process. The advisory group consisted of a psychologist experienced in counselling sexual abuse survivors, a sexual abuse counsellor, a sexual abuse counselling centre representative, a midwife with specialist knowledge of PTSD and birth, a Kindergarten support manager and a Maternal Mental Health expert. Consultation with Kawa Whakaruruhau Komiti (AUT) provided Maori support (see cultural considerations). The advisory group specifically assisted with development of the study documentation (an introductory flyer, information sheet and questionnaire) and provided advice on recruitment methods.

Consultation was also undertaken with community sexual abuse service agencies to secure their agreement to be named as referral agencies for study participants at any stage before, during or after consideration of participation. ACC funded agencies were sought to ensure support was accessible for all. Women were informed that the agencies were aware and supportive of the study. Support agencies identified were: AUT Health and Counselling Services (three free counselling sessions), Auckland Sexual Abuse HELP foundation, Te Whareruruhau O Meri, Trauma After Birth Society (TABS) and Chinese Lifeline. Addressing the subject of sexual abuse may provoke a traumatic psychological reaction for some women or it may foster their journey of healing. The study procedures incorporated acknowledgement of this. Details for the support agencies were provided in both the information sheet and questionnaire and suggestions were given in the information sheet regarding how women might consider and approach

participation in the study. Care was taken not to use coercive language in the study documentation. Information about possible effects from reading questions regarding sexual abuse history were given, such as flashbacks and dreams, and reassurance was given that these are common potential reactions. Kennedy Bergen (1993) found several women whom she interviewed about marital rape had these types of reactions, however these women were able to access counselling and subsequently expressed positive reinforcement for their participation in the study as they were pleased someone wanted to hear them. A blank page was provided at the end of the questionnaire and women were invited to write any comments providing an opportunity for women to express their feelings and tell their story.

Cultural Considerations

In Aotearoa, New Zealand it is expected that health researchers “establish research practices which ensure that the research outcomes contribute as much as possible to improving Maori health and well-being, while the research process maintains or enhances mana Maori” (Health Research Council of New Zealand, 1998, p.3). The author used these guidelines and Treaty of Waitangi to inform the planning and undertaking of this study.

A process of collaboration was undertaken beginning with consultation with Kawa Whakaruruhau Komiti, Auckland University of Technology, at the start of planning for the study. A short summary of the study was presented at a Komiti meeting and advice and support was requested by the author, regarding how to undertake this study in a way that would be useful for and contributory to the wellness of Maori women. Kawa Whakaruruhau Komiti offered support for the study (appendix I), and named certain areas to be addressed.

The study would lack representativeness due to many Maori families choosing to enrol their children in Maori based early childhood education (Te Kohanga Reo) rather than AKA kindergartens. Although certainly welcomed and included, the target population for this study was not specific to Maori. In consideration of the scope of this master's level study, the author acknowledges the limited ability to be representative. Komiti expressed concern over financial considerations. Support agencies were identified and named after ascertaining that they were ACC funded and offered partial subsidisation of fees. A Maori referral support agency, Te Whareruruhau O Meri, offered support for the study following consultation and was named as a referral agency.

General Ethical Considerations

All raw data were stored in a locked filing cabinet. Anonymity was maintained by use of study code numbers for participants on all study information. Only the researcher and supervisor had access to the data. Women were informed that dissemination of the research results would be distributed to the kindergartens involved in the study and the findings submitted to health journals for publication. This research protocol was approved by the Auckland University of Technology Ethics Committee (Appendix A).

This chapter has described the design and methods of this correlational study to measure prevalence of sexual abuse and birth outcomes among a group of women who recently gave birth and to test for associations. Detail of ethical and cultural considerations necessary to conduct the study in a safe way for researcher and participants has been given. The next chapter presents the results of this study.

CHAPTER 4

FINDINGS

This chapter presents the findings that answer the three research questions:

1. What is the lifetime prevalence of sexual abuse amongst a group of women who recently gave birth?
2. What were the labour outcomes amongst a group of women who recently gave birth?
3. Is a history of sexual abuse associated with adverse labour outcomes?

Baseline characteristics are presented first, followed by results for each of the research questions. Four hundred and forty flyers inviting participation were distributed at five kindergartens. The LEQ was requested by 119 women and completed and returned by 85 (71%), providing a study response rate of 19% from flyer distribution.

Questionnaires were returned within 3 weeks by 89% of the sample, within 3-4 weeks by 7% and after 4 weeks by 4%.

Baseline Characteristics

The sample consisted of 85 participants, with a mean maternal age of 36 and a range from 22 to 51 years. The mean age of the child attending kindergarten was 4.2 years, a (range 3.2 to 5.0 years). There was a predominance of NZ European or other European participants as shown in Table 10. Most participants (92%) had school qualifications; approximately half (54%) had tertiary qualifications. Eighty percent of births took place in Auckland. Most of the births occurred in hospital (84%), 12% were in a low risk unit, 4% were home births. The mean gestation at time of birth was 39.9 weeks (range 36 to 43). Approximately one third of the sample was primiparous (n= 30;

35%) and two thirds multiparous (n=55; 65%). Among the multiparous population, this was the first vaginal birth for five participants.

Table 10. *Ethnicity of participants (n =85).*

Ethnicity	n (%)
NZ European	62 (72.9)
NZ Maori	1 (1.2)
Other European	12 (14.1)
Chinese	3 (3.5)
Indian	3 (3.5)
NZ Maori and European	1 (1.2)
NZ Maori and other European	1 (1.2)
Other ethnic group	2 (2.5)

Research Question 1

What is the lifetime prevalence of sexual abuse amongst a group of women who recently gave birth?

The lifetime prevalence of sexual abuse for the sample was 36.9% (n=31).

Table 11 shows when and how often abuse occurred. The most prevalent type of abuse was touching genitals of participant (22%). The least common type of abuse was being forced to touch the body of the perpetrator (1%). The most intrusive type of abuse, penetration into vagina, rectum or mouth with a penis, object or other part of the body was experienced by nearly half of those abused, and by 16% of the sample overall. Among the 14 women who experienced abuse with penetration, half reported it

occurred more than once. Touching the body of the participant (18%) and attempted penetration (15%) were also commonly experienced. Sexual humiliation occurred

Table 11: Frequency of time of occurrence of abuse and lifetime frequency of type of abuse (N=85)

Type of sexual abuse	Frequency of abuse no. (%)	Age n =31 (%)			Frequency of abuse n =31(%)		
		Childhood	Adolescence 13 to 17 yrs	Adulthood	Once	Few	Many
Sexual humiliation	7 (8.2)	3 (9.7)	2 (6.5)	2 (6.5)	4 (12.9)	2 (6.5)	1 (3.2)
Forced to touch body of perpetrator	1 (1.1)	0 (0.0)	0 (0.0)	1 (3.2)	1 (3.2)	0 (0.0)	0 (0.0)
Forced to touch genitals of perpetrator	10 (11.7)	4 (12.9)	5 (16.1)	2 (6.5)	3 (9.7)	5 (16.1)	1 (3.2)
Body of participant touched	16 (18.8)	3 (9.7)	6 (19.4)	10 (32.3)	3 (9.7)	12 (38.7)	1 (3.2)
Genitals of participant touched	19 (22.3)	8 (25.8)	9 (29.0)	4 (12.9)	5 (16.1)	12 (38.7)	2 (6.5)
Attempted penetration	13 (15.2)	3 (9.7)	4 (12.9)	5 (16.1)	4 (12.9)	8 (25.8)	1 (3.2)
Succeeded penetration	14 (16.4)	2 (6.5)	7 (22.6)	6 (19.4)	7 (22.6)	6 (19.4)	1 (3.2)

Note. Percentages for frequency of abuse are for all participants (n=85)

Percentages for age and frequency of abuse are for women who disclosed abuse (cell percentages) (n=31)

Totals do not compute to 100% due to co-occurrence of non mutually exclusive categories of age and frequency.

mostly on a single occasion.

Overall, sexual abuse was experienced most commonly in adulthood (32%) and least commonly in childhood (16%). Age at first time of abuse ranged from 5 years to 31 years, the most common age was during adolescence at fifteen years. The most common type of abuse perpetrated, touching the genitals of the participant, occurred mostly in childhood (26%) and adolescence (29%). These were also the ages reported most commonly for forced touching of the genitals of the perpetrator. Touching the body of the respondent was more frequently reported in adolescence (19%) and adulthood (32%). Attempted and succeeded penetration also occurred most frequently in adolescence (23%) or adulthood (19%). Figure 6 shows overlap of abuse across age groups.

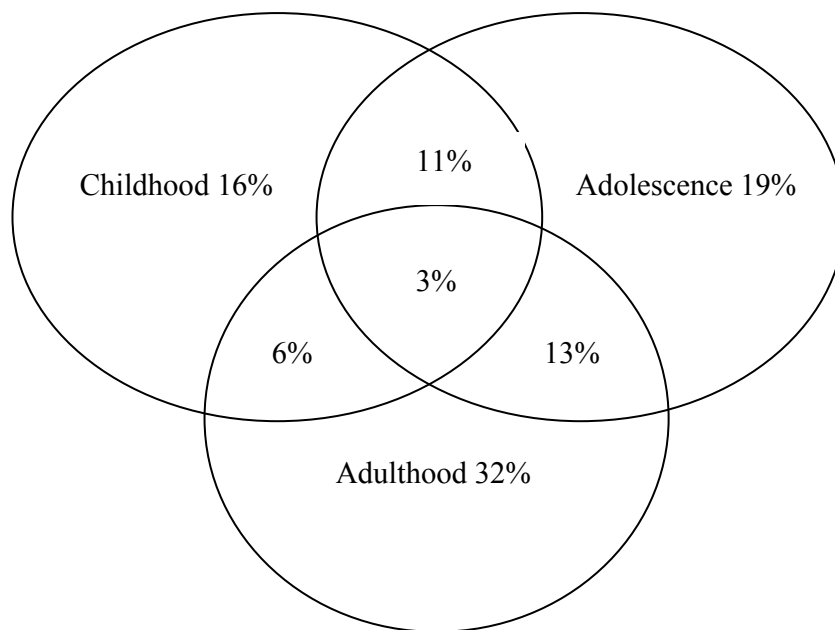


Figure 6. Diagram showing frequency of abuse across age groups (n=31).

Most types of abuse were perpetrated ‘a few times’ particularly touching the body or genitals of the participant and attempted penetration. Some participants reported multiple types of abuse.

Table 12 shows abuse perpetrators. All abusers were male except one female who was a same age playmate. Some women reported multiple perpetrators. No women reported abuse occurring whilst pregnant. Five respondents (16%) had undergone counselling related to sexual abuse.

Table 12. *Perpetrator of sexual abuse (n =31)*

Perpetrator	Frequency (%)
Current/former partner	9 (10.4)
Parent	1 (3.2)
Step parent	0 (0)
Sibling	2 (6.4)
Family member not listed above	3 (9.6)
Same age playmate	4 (12.9)
Family friend	4 (12.9)
Known person, not family	11 (35.4)
Stranger	8 (25.8)

Note. Frequency is greater than 31 as some participants reported more than one abuser.

Research Question 2

What were the labour outcomes amongst a group of women who recently gave birth?

Onset of labour.

Seven participants (8.6%) did not labour. Onset of labour was spontaneous for most of the participants (63%) and induced for approximately one quarter (28.4%).

Prostin was the most common method of induction (65.2%), followed by ARM (52.2%)

and IV syntocinon (47.8%). Induction of labour frequently involved more than one method.

Pain relief.

Pain relief was used by 86.7% of the sample. Ten participants (9%) used none.

Table 13 shows frequency of use of each type of pain relief and each category of pain relief.

Table 13. *Methods and categories of pain relief used (N = 65)*

Method of pain relief used	No. of women used by n (%)
Nonpharmacological	30 (30.7)
Massage	9 (12.0)
Acupuncture	0 (0.0)
Water relaxation	14 (18.7)
TENS	7 (9.3)
Analgesic	55 (54.7)
Entonox	37 (49.3)
Opioid injection	18 (24.0)
Anaesthetic	30 (40.0)
Epidural/spinal	30 (40.0)

The most common category of pain relief was analgesic. Entonox, an analgesic, was the most frequently used individual type of pain relief used by half of the sample. Use of anaesthetic pain relief was also common (40%).

Augmentation of labour.

Labour was augmented for over half of the sample (61.2%). Artificial rupture of membranes (ARM) was performed for half (49.4%). Intravenous oxytocin was used for

nearly one third of participants (29.4%). A combination of ARM and IV oxytocin was used for 17.6%.

Length of labour.

Self reported length of labour averaged 8 hours and ranged from 0.5 hours to 28.0 hours as shown in Figure 7. Five participants experienced labours that lasted two hours or less and fourteen that lasted 12 hours or more.

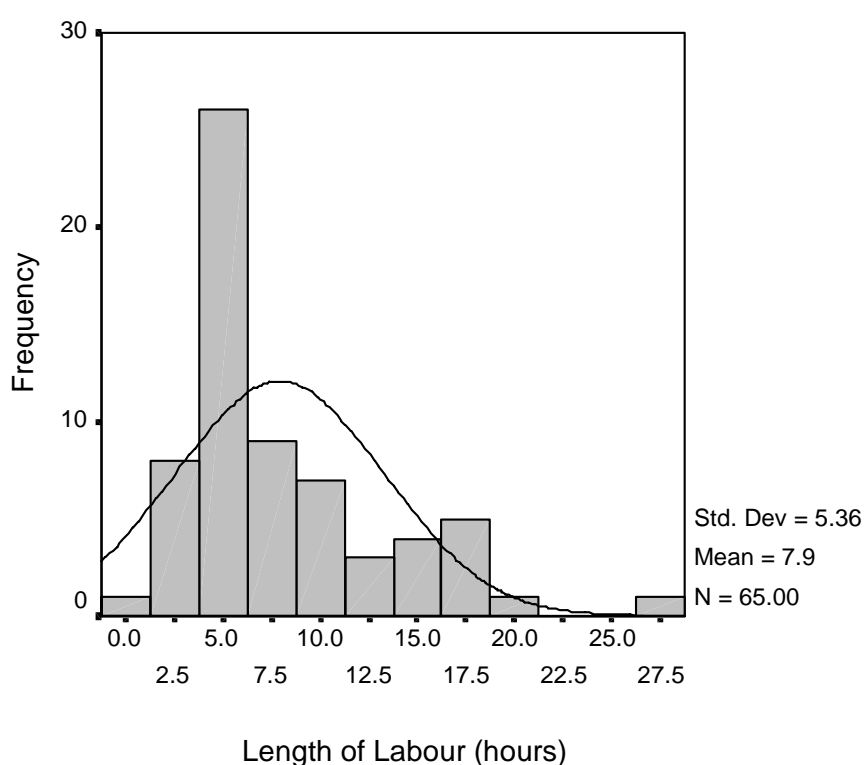


Figure 7. Histogram of length of labour (n=61)

Type of birth.

Over half of the sample experienced normal vaginal births (58.8%). Numbers of assisted vaginal births and births by caesarean section were equal (18.8%). Table 14 shows the frequency of each type of birth.

Table 14. *Frequency of type of birth (N = 82)*

Type of birth		n (%)	
Normal vaginal	50 (60.9)		
Assisted vaginal	16 (19.5)	Suction cap	9 (56.3)
		Forceps	4 (25.0)
		Suction cap and forceps	3 (18.8)
Caesarean section	16 (19.5)	Prelabour emergency	3 (18.8)
		In labour emergency	8 (50.0)
		Elective	5 (31.3)

Social Support.

A large majority (91%) of participants responded that they felt well supported most or all of the time during labour and birth. None of the women reported having no support. Nearly all of the participants had a partner at around the time of birth (95%).

Birth Experience

Overall sum scores for the W-DEQ (version B) showed a mean of 48.8 with a median score of 46 and a range of 4 to 121 (Figure 8). There was little difference between the 5% trimmed mean and original mean, indicating no strong influence on the mean from more extreme scores. A non-significant Kolmogorov-Smirnov result (0.200) indicated normality of the distribution of scores. Two cases scored above 110, the score considered to indicate a clinically negative birth.

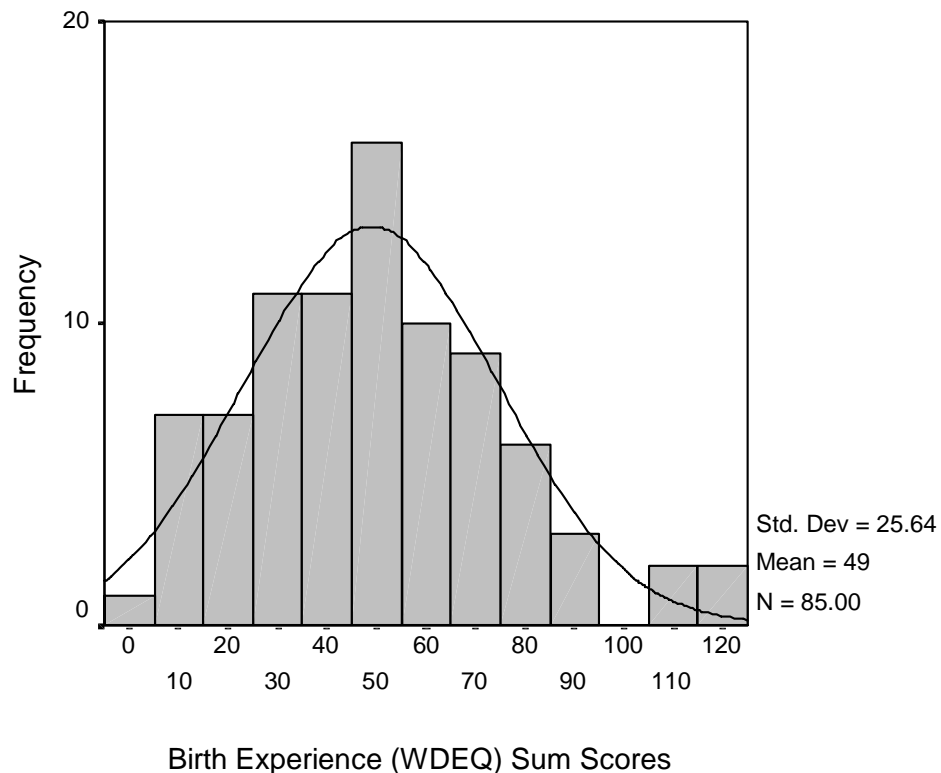


Figure 8. Histogram of birth experience scores (n=85)

Birth Trauma

Traumatic event criterion A was fulfilled by nearly half of the sample (43.5%). Fifteen (17.6%) of those who fulfilled Criterion A did not fulfil criteria B or C or D. Twenty two participants who fulfilled Criterion A also fulfilled criteria B and/or C and/or D, providing an overall figure of 25.9% of the sample (N=85) who fulfil criteria for demonstrating PTSD symptomology. Table 15 shows how many participants fulfilled individual criteria A, B, C, and D. The most common criterion, fulfilled by a fifth of the sample was D, measuring symptoms for hyperarousal. Symptoms of avoidance were least reported. One case fulfilled criteria A to E inclusive but did not report a length of time for fulfilment of criteria F. One case fulfilled all criteria A to F providing a prevalence rate of PTSD of 1.2%.

Table 15. *Frequency of fulfilment of criteria for PTSD symptomology (N =85)*

Criteria	Frequency n (%)
Traumatic Event Criterion A	37 (43.5)
Criterion A only	15 (17.6)
Criterion A plus B (intrusion)	12 (14.1)
Criterion A plus C (avoidance)	9 (10.6)
Criterion A plus D (hyperarousal)	17 (20.0)
Criterion A plus B and /or C and /or D (PTSD symptomology)	22 (25.9)

Overall sum scores for the TES showed a mean of 25 with a median score of 23 and a range of 29 from 17 to 46. Distribution of scores produced a positive skew, as shown in Figure 9, significant for a mode where a group of women scored at the lowest level of 17 – 19.

There was little difference between in the 5% trimmed mean and original mean, indicating no strong influence on the mean from more extreme scores. Overall most TES sum scores lay in the first third of the range indicating low levels of birth trauma for most of the participants (Figure 9). A higher sum score indicates higher levels of birth trauma.

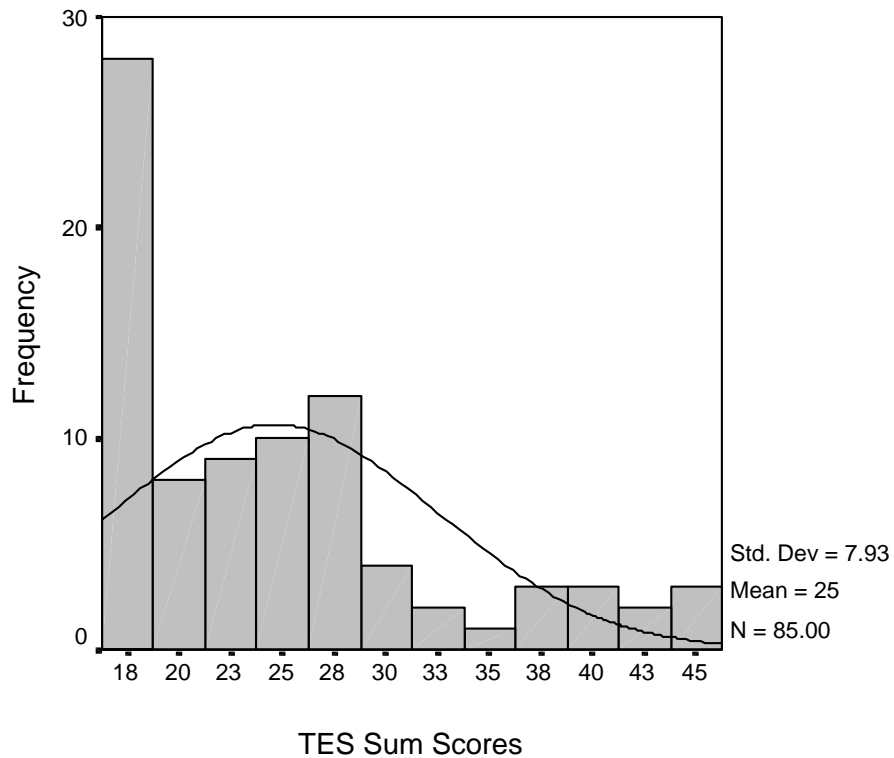


Figure 9. Traumatic Event Scale Sum Scores

Postnatal Depression

Postnatal depression was reported by just over one quarter of the sample (28%), half of whom received treatment.

Research Question 3

Is a history of sexual abuse associated with adverse labour outcomes?

Associations between sexual abuse and six obstetric outcomes, birth experience and birth trauma were measured. Findings are provided below and then summarised in Tables 16 and 17 at the end of the chapter.

Sexual Abuse and Obstetric Outcomes

Sexual abuse and onset of labour.

Sexual abuse and type of onset of labour were not found to be significantly associated, $\chi^2 (2, N=80) = 1.362, p = 0.506$. Women with a positive sexual abuse history were not less likely to labour spontaneously (70% vs 60%) and were not more likely to have labour induced (20% vs 32%).

Sexual abuse and use of pain relief.

Sexual abuse was significantly associated with use of nonpharmacological pain relief $\chi^2 (2, N=74) = 15.758, p = 0.000$. No significant associations were found between sexual abuse and analgesic pain relief, $\chi^2 (2, N=74) = 0.004, p = 0.947$; anaesthetic pain relief, $\chi^2 (2, N=74) = 2.099, p = 0.147$; and no pain relief, $\chi^2 (2, N=74) = 1.356, p = 0.244$. Women who reported a history of sexual abuse were more likely to use nonpharmacological pain relief (67% vs 30%) but were not more likely to use analgesic pain relief (52% vs 45%), anaesthetic pain relief (26% vs 42%) or no pain relief (7% vs 17%).

Sexual abuse and augmentation of labour.

There was no significant association between sexual abuse and augmentation of labour, $\chi^2 (1, N=74) = 0.101, p = 0.751$. Women who reported a history of sexual abuse were not more likely to have augmentation of labour (67 % vs 70%).

Sexual abuse and length of labour.

There was no significant difference in length of labour for women with a negative abuse screen ($M = 7.73, SD = 5.57$) and those with a positive sexual abuse screen ($M = 8.54, SD = 4.97; t (62) = -0.580, p = 0.564$). Figure 10 shows the distribution of the two groups. Women with a positive abuse screen did not have

significantly shorter labours lasting less than or equal to three hours ($t(6) = -0.980$, $p = 0.365$) or longer labours lasting twelve hours or more ($t(12) = -0.484$, $p = 0.637$).

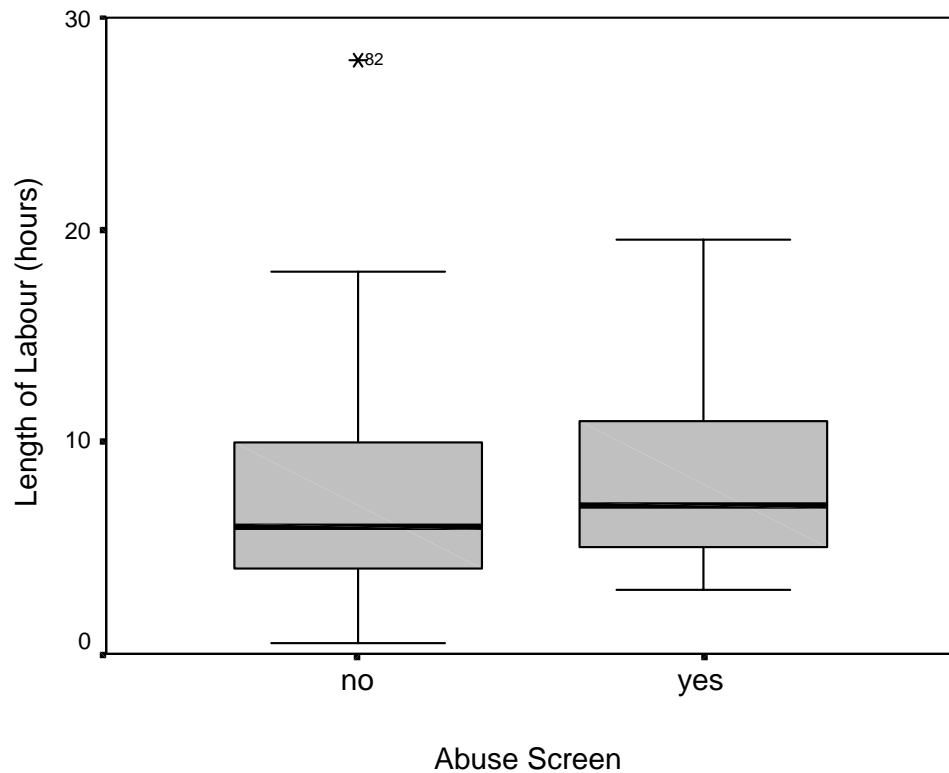


Figure 10. Distribution of length of labour for negative and positive abuse screen

Sexual abuse and type of birth.

There was no significant association between a history of sexual abuse and normal vaginal birth, $\chi^2(1, N=81) = 0.161$, $p = 0.436$; or assisted vaginal birth, $\chi^2(1, N=81) = 0.286$, $p = 0.409$; or caesarean section $\chi^2(1, N=81) = 0.002$, $p = 0.591$. Women with a positive sexual abuse history were not less likely to have a normal vaginal birth (63% vs 59%), or more likely to have either an assisted vaginal birth (17% vs 22%) or caesarean section (20% vs 20%).

Sexual abuse and social support.

There was no significant association between sexual abuse history and whether a partner was present $\chi^2 (2, N=84) = 1.741, p = 0.419$ or sexual abuse history and social support $\chi^2 (3, N=84) = 7.211, p = 0.065$. Women with a positive sexual abuse screen were not less likely to have a partner present (94% vs 96%) and were not less likely to have social support.

Sexual abuse and postnatal depression.

There was a significant association between a history of sexual abuse and postnatal depression. Women with a positive sexual abuse history were more likely to report postnatal depression than women with a negative sexual abuse history (45% vs 17%; $\chi^2 (1, N=84) = 7.812, p = 0.005$).

Sexual Abuse and Birth Experience

There was no significant difference in birth experience between women with a positive abuse screen and those with a negative abuse screen $t (82) = .060, p = .952$. Women in the negative abuse screen group ($M = 49.09, SD 27.32$) scored similarly to those in the positive abuse screen group ($M = 48.74, SD 23.36$). Figure 11 shows the distribution of the two groups. Neither of the two cases whose birth experience scores indicated a clinically negative birth experience (>110) disclosed a history of sexual abuse.

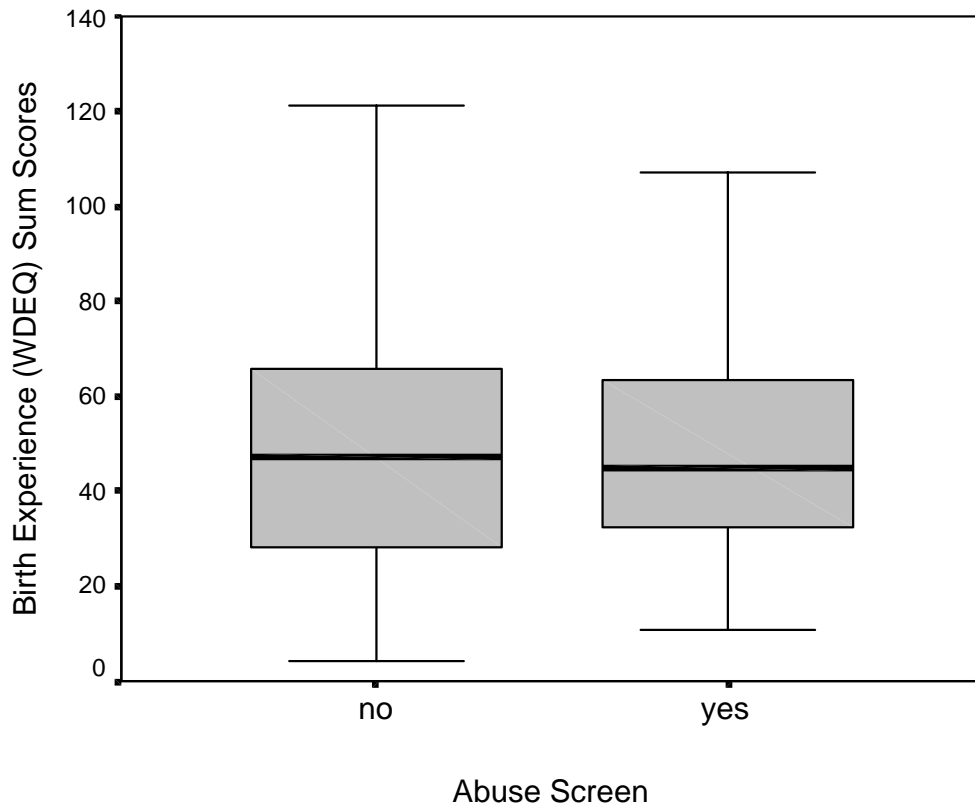


Figure 11. Distribution of W-DEQ scores for negative and positive sexual abuse screen.

Sexual Abuse and Birth Trauma.

There was no significant difference in birth trauma between women with a positive sexual abuse screen and those with a negative screen $t(82) = -.665, p = .508$. Women in the negative abuse screen group ($M = 24.15, SD 8.22$) scored similarly to those in the positive abuse screen group ($M = 25.35, SD 7.61$). Figure 12 shows the distribution of the two groups. There was no significant association between both abuse and PTSD, $\chi^2(1, N=84) = .592, p = .422$ and abuse and PTSD symptomology, $\chi^2(1, N=84) = .426, p = .514$. Women who disclosed a sexual abuse history were not more likely to have a diagnosis of PTSD or report PTSD symptomology. The single case fulfilling criteria for a diagnosis of PTSD did not report a history of sexual abuse.

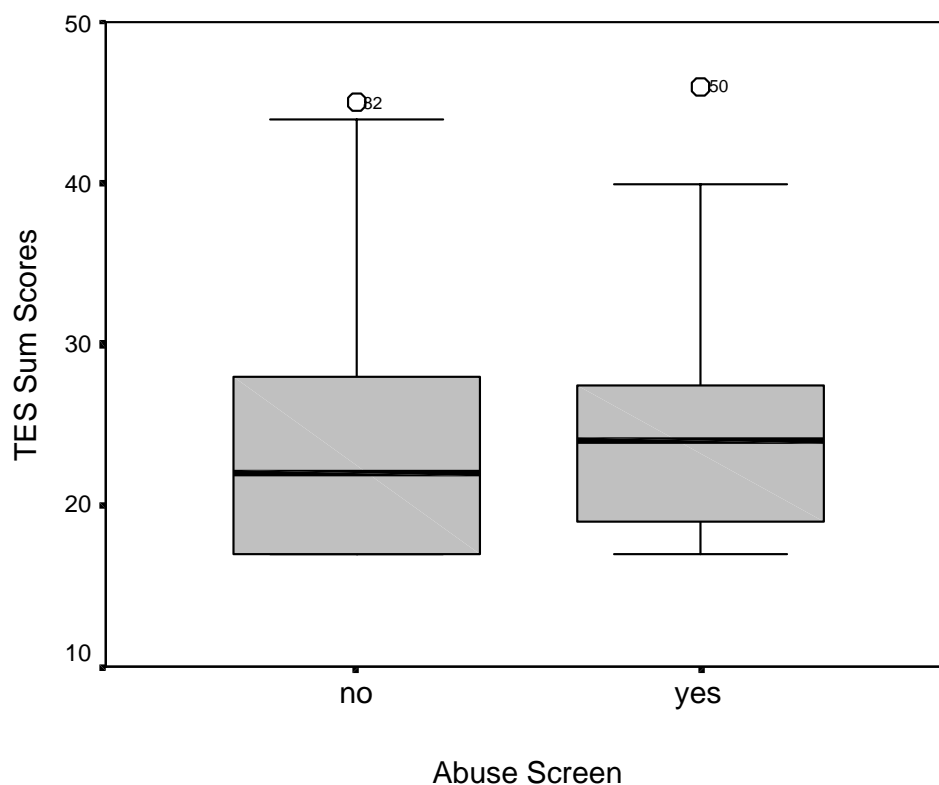


Figure 12. Distribution of TES sum scores for negative and positive abuse screen

Summary

This chapter has presented the findings of prevalence of the independent variable sexual abuse, and the dependent variables obstetric birth outcomes, birth experience and birth trauma. Results of tests for statistical association between the independent and the dependent variables have been described. The findings are summarised in Tables 16 and 17 following this summary. In the next chapter, these findings are discussed and compared to related literature.

Table 16. *Summary of findings of association for sexual abuse and obstetric outcomes.*

	Total (%)	No (n =53)	Abuse Yes (n =31)	P value
Obstetric outcomes				
Onset of labour (n=80)				0.506
No labour	7 (8.7)	4 (7.5)	3 (9.67)	
Spontaneous	51 (63.7)	30 (56.6)	21 (67.7)	
Induced	22 (27.5)	16 (30.2)	6 (19.3)	
Type of pain relief (n=74)				
Nonpharmacological	23 (30.7)	7 (13.2)	16 (51.6)	0.000
Analgesic	14 (18.7)	9 (16.9)	5 (16.1)	0.947
Anaesthetic	30 (40.0)	22 (41.5)	8 (25.8)	0.147
Augmentation of labour (n=74)				0.751
No	23 (31.0)	14 (26.4)	9 (29.0)	
Yes	51 (69.0)	33 (62.3)	18 (58.0)	
Length of labour (n=65)				
Mean (SD)	7.9 (5.36)	7.73 (5.57)	8.54 (4.97)	0.564
Type of birth (n=81)				0.863
Normal vaginal	49 (60.5)	30 (56.6)	19 (61.2)	0.436
Assisted vaginal	16 (19.75)	11 (20.7)	5 (16.1)	0.409
Caesarean section	16 (19.75)	10 (18.8)	6 (19.3)	0.591
Social support (n=84)				0.065
Partner not present	3 (4.7)	1 (1.9)	2 (6.4)	0.419
Partner present	80 (95.3)	51 (98.1)	29 (93.6)	

Note. Totals do not always compute and do not always equal presented totals for outcome variables. This is due to missing values or because all questions did not apply for some women (e.g. to women who did not labour). All p values were all based on χ^2 , details in text.

Table 17. *Summary of findings of association between sexual abuse and birth experience, birth trauma and postnatal depression.*

Variable	Total	No n=53	Abuse Yes n=31	P value
Birth Experience (n=84)				0.952
W-DEQ sum scores				
Mean (SD)	49.0 (29.64)	49.09 (27.32)	48.74 (23.36)	
Birth Trauma (n=84)				0.508
TES sum scores				
Mean (SD)	24.59 (7.93)	24.15 (8.22)	25.35 (7.61)	
PTSD symptomology				0.514
No	63 (75.0)	41 (77.3)	22 (71.0)	
Yes	21 (25.0)	12 (22.7)	9 (29.0)	
Full PTSD profile				0.422
No	83 (98.8)	52 (98.2)	31 (100.0)	
Yes	1 (1.2)	1 (1.8)	0 (00.0)	
Postnatal Depression (n=84)				0.005
No	61 (71.8)	44 (83.0)	17 (54.8)	
Yes	23 (28.2)	9 (17.0)	14 (45.2)	

Note. Due to missing values, totals for outcome variables do not always equal totals presented in findings for research question 2. All p values were all based on χ^2 or t-test, details in text.

CHAPTER 5

DISCUSSION

This chapter will discuss the findings of sexual abuse prevalence, obstetric outcomes, birth experience and birth trauma and the association between these variables in relation to other research described in the literature. The study limitations and strengths will be described, and implications for practice and future research discussed, followed by the conclusion.

Summary of Key Findings

In this cross-sectional survey of 85 women who recently gave birth, lifetime sexual abuse was found to be a common experience. More than one out of every three women (37%) disclosed an experience of sexual abuse in her lifetime. A history of sexual abuse was not associated with adverse labour and birth outcomes, however women with a positive sexual abuse history were more likely to report postnatal depression. A quarter of the women had PTSD symptoms. Overall, women had positive birth experiences and felt well supported. These findings will be appraised in relation to the strengths and weaknesses of this study to evaluate the likelihood that the findings are a reflection of true results.

Study Strengths and Limitations

Design and Conduct

Undertaken as partial requirement towards fulfillment of a Master of Health Science, there were scope and time limitations. Sample size calculations undertaken for this study were determined to enable an 80% chance to detect a significant difference for the study aims if a true change was present. Recruitment of participants (85) did not

meet the required sample size (96), thus underpowering the study findings.

Interpretation of non significant results needs to be undertaken with regard to power analysis, demanding caution with reliance on p values as the main evidence in this study. Interpretation should also focus on observed difference as well as the differences this study could have been expected to detect according to design-power method (Rossi, 1997).

Sample size calculations for this study did not incorporate sample size requirements for a full diagnosis of PTSD and overall a small sample size may have prohibited statistical detection of difference. If no significant difference was obtained, and a finding of no association between sexual abuse and adverse labour and birth outcomes was accepted as true when it was in fact false, there is the probability of a Type II error. There are various reasons why a Type II error may have occurred in this study and accordingly, reliance on statistical significance as the basis for deciding the existence of effect should not be exclusive. A difference may be present yet be statistically detectable only in a larger sample size. However the estimated differences were not judged to be clinically important. For example, mean test scores between abuse and non-abused women for the Traumatic Event Scale with a possible range of 17 to 54, only had a difference of 1 (24 and 25). There may also be a lack of reliability or validity in the measurement of variables. The Obstetric Outcome Questionnaire, developed by the study author, had support only for face validity. There are many other obstetric variables that may be associated with a history of sexual abuse such as medical intervention (eg. catheterisation, episiotomy) or levels of pain that were not addressed. Use of more extensive intervention questionnaires to score medical intervention such as the Medical Intervention Scale used by Soet et al. (2003) would provide more detailed

data. No validity testing was found for the TES. There is a possibility that there was a lack of sensitivity of variables in being able to detect differences.

The author acknowledges concern regarding the measurement of a sexual abuse history in this study. Accuracy of a dichotomous measurement of sexual abuse was attained, but sensitivity may have been lost in use of this gross dichotomous measure. A more sensitive measure of sexual abuse may be able to detect an association between a history of sexual abuse and adverse labour and birth outcomes in a subgroup of women. It is possible that prolonged, more invasive types of childhood sexual abuse are associated with adverse labour and birth outcomes. Literature relating to research exploring childhood sexual abuse suggests that the type of abuse may reflect subsequent health sequelae. Particularly traumatic birth experiences appear to be associated with severe abuse involving penetration (Neumann et al., 1996; Rose, 1992). Analysis of this nature could lead to further hypothesis testing, however this needs to be conducted in a systematic thorough manner and as the sample size in this study was inadequate to undertake subgroup analysis, none was undertaken.

Although the possibility of accepting that there is no association between sexual abuse and adverse labour and birth outcomes may be an error, accepting a finding of no association is more likely to be accurate. The magnitude of difference for sexual abuse and both birth experience and birth trauma by sexual abuse were not wide enough to be considered clinically important, therefore a negative conclusion is acceptable. For the population of this study, there is a high probability that no association exists, and this may be related to selection bias that may have been introduced into this study for various reasons that will be discussed in the following section.

Response Rate and Representation of Diversity

The response rate was acceptable for the methods used in this study. This study is not representative of Auckland or New Zealand for ethnicity, education or income thus care must be taken in generalising the results. Selection bias may have been introduced into this study for various reasons. The sample had a comparatively higher European and lower Maori and Asian population and was well educated and qualified when compared to the general Auckland population. These characteristics are partly reflected by the high decile level of 10 for all of the participating kindergartens. This population may have had access to support and resources to assist recovery from sexual abuse that would not be available to a lower income population.

Rates of obstetric outcomes in this study were compared to those available for the Counties Manukau District Health Board (CMDHB) in year 2000, under whose jurisdiction the participating kindergartens lie (Ministry of Health, 2003). Induction of labour was more common among study participants (28% vs 17%) as was use of epidural anaesthesia (40% vs 22%). There were fewer unassisted vaginal births in the study sample (59% vs 73%) and more assisted vaginal births (18% vs 9%). Rates of caesarean section were the same at 18%. Higher use of epidural anaesthesia may be attributable to the areas in which women gave birth; for example, Auckland District Health Board (ADHB) epidural rate in 2000 (38.2%) was much higher than that of CMDHB (22%). In 2000, ADHB reported fewer unassisted vaginal births (61.1%) and a higher rate of assisted vaginal births (13.6%) than CMDHB. Therefore, there may be bias related to the study population with respect to obstetric outcomes.

It is likely that respondents in this study were those for whom disclosure was “psychologically safe”, and who were well along in recovery from sexual abuse. There is an assumed non participation of abused women who were least healed, and who did

not feel safe or secure enough to disclose abuse, yet it may well be that these are the women who are at highest risk for abuse related traumatic birth experiences.

Alternatively, non-abused women may not have been interested in participating.

Exploring prevalence among a population-based rather than a clinical-based sample such as women seeking mental health services is a strength of this study. In addition, being population based gives a positive picture of the resilience of women to recover from abuse. The rate of one in three women who disclosed sexual abuse in this study suggests that many participants felt that they were in a safe environment to disclose. This reflects an achievement of the safety planning undertaken for this study.

Procedures

Care was taken in the design and procedures of this study to ensure safety for researcher and participants. However, there were still perhaps many women for whom disclosure did not feel safe. Eleven women gave comment as invited at the end of the questionnaire. There were no negative responses from either negative or positive abuse screen women to the intimate screening questions. The high prevalence rate and absence of negative feedback suggests that many women found screening for sexual abuse acceptable when undertaken with safety planning.

The retrospective nature of this study and surveying women up to five years after birth may introduce significant historical biases. Women may have had subsequent births, and could have had difficulty separating birth experiences. They may have experienced other life events that affected their vulnerability to post-traumatic stress or how they would respond to the questionnaire. Participants may have had counselling in the interim between birth and this study.

Using interviews rather a questionnaire may have increased abuse disclosure (McFarlane, Christoffel, Bateman, Miller, & Bullock, 1991). Some qualitative studies

have undertaken this method (Parratt, 1994; Rhodes & Hutchinson, 1994). The aim of this study was to determine a prevalence rate of sexual abuse from a population based sample and therefore a positivist methodology was chosen as being most appropriate. This study does not disclaim any woman's experience of abuse and birth and acknowledges the experiences of every participant in this study.

Interpretation of Findings

Prevalence of Sexual Abuse

The prevalence rate of 37% for lifetime sexual abuse in this study is nearly double that reported in the NZ National Survey of Crime Victims (19%) (Morris & Reilly, 2003), but comparable to an Otago women's study reporting a rate of 32% before age 16 among a community sample of women (Anderson et al., 1993). Benedict et al (1999) reported a 37% prevalence of sexual abuse before age 18 exploring association of childhood sexual abuse with depressive symptoms during pregnancy and selected pregnancy outcomes. In their study of a large community sample of women in Auckland (N=2674), Fanslow and Robinson (2004) found 14% of women reported lifetime sexual violence by an intimate partner and 9% by a non-partner. In a study measuring prevalence of partner violence among women seeking emergency health care in South Auckland, a lifetime prevalence rate of 20% for sexual abuse was reported (Koziol-McLain et al., 2004).

The higher sexual abuse prevalence rate in this study may be related to the younger age group of the sample (22-51 years). In the NZ National Survey of Crime Victims the highest rates of lifetime experience of sexual abuse were in the two age groups covering 17-39 years (26% and 22%). The current study is the first study to have explored sexual abuse prevalence among a sample of recent mothers in New Zealand or associations between sexual abuse and birth outcomes. The study findings are

comparable to other international studies exploring sexual abuse and pregnancy and birth outcomes. The finding in this study that sexual abuse is most prevalent during adulthood is not similar to findings in other studies measuring life time sexual abuse that found most prevalent sexual abuse occurred during adolescence (Peschers et al., 2003). The age range defining adolescence in different studies may affect findings for prevalence rates. In this study most perpetrators of sexual abuse were known to the abused. This is a common finding in other studies, particularly when sexual abuse was experienced in childhood (Anderson et al., 1993; Fergusson et al., 1996).

Tests of Association

Sexual abuse and obstetric outcomes

Onset of labour

In this non-clinical sample, a history of sexual abuse was not associated with adverse labour and birth outcomes. This is the first study that tested for an association between a history of sexual abuse and type of onset of labour and no significant association was found. Jacobs' (1992) preliminary study exploring childhood victimisation and later sequelae during pregnancy and childbirth reported longer pregnancies for survivors of sexual abuse. Hypothesising that stress activated emotional/biochemical processes may affect labour onset, Horan et al (2000) suggest childhood sexual abuse activates corticotrophin releasing hormone (CRH) gene expression in the brain and a vulnerability to elevated CRH gene expression in the placenta. Elevated CRH has been associated with preterm labour. Stevens-Simon and McAnarney (1994) found abused women were more likely to have premature babies. If, as Jacobs (1992) found, abuse survivors have longer pregnancies, do they have more pregnancies that are post term, postmaturity being one of the indications for induction? If so, it is theoretically plausible that induction rates may be higher for abuse survivors.

Alternatively, considering Horan's (2000) hypothesis, is sexual abuse history associated with earlier onset of labour? Jacobs (1992) used a very small sample of 15 women necessitating caution in generalisation of findings, and overall there has not been enough research in this area to determine association of sexual abuse history and onset of labour.

Sexual abuse and use pain relief

The finding of an association between a history of sexual abuse and use of nonpharmacological pain relief in labour does not support Jacob's (1992) work in which he found no association between sexual abuse and any type of pain relief used in labour. Tallman and Hering (1998) found 12% of survivors of child abuse utilised hospital pain medications in labour, compared to 6% of those non abused, but no statistical analysis details are given and lack of information about medication type defies comparison with this study. The literature revealed the issue of control to be important to abuse survivors in labour (Burian, 1995; Parratt, 1994; Rhodes & Hutchinson, 1994). Analgesic and anaesthetic pain relief can result in loss of mental and physical control, thus it is possible that women with a history of sexual abuse choose a method of pain relief (i.e. nonpharmacological) that enables them to maintain more control during their birth experience. This issue is described in a life history study of pregnancy and birthing for a childhood sexual abuse survivor (P. Smith, 1993). The dilemma of such a choice is revealed in the study, as to be undrugged and fully conscious may increase control, but it exposes the woman to an overwhelming potentially sexual experience during birth. In the life history study, refusal of pain relief, "I had to be in control" (p.97), triggered a well-used coping strategy of dissociation to control breathing. The resulting labour was not a positive experience; "I just got on and did it" (p.97). Use of both non-pharmacological and pharmacological pain relief by some women in this study is

acknowledged. Social support reported for the current study could have contributed toward women feeling able to cope with a fully conscious experience of birthing, thus influencing use of pain relief.

Sexual abuse and augmentation of labour

This study found no association between a history of sexual abuse and augmentation of labour. At present there is very little research with which to compare this finding, but there is some support for this finding in the literature. In their study exploring the relationship between a history of childhood abuse and birth outcomes for women who had planned home or out of hospital births, Tallman and Hering (1998) found a higher rate of intrapartum (during labour) transfer to hospital for survivors of childhood abuse ($p = 0.05$). The most common reason for transfer was failure to progress in the first stage of labour. Benedict et al (1999) found no statistically significant association between sexual abuse and dysfunctional labour but noted that for abused women who had an assisted or caesarean section, the indication to do so was more likely to be for failure to progress/descend. The current study did not discern indication for augmentation and assumed any artificial rupture of membranes to infer augmentation. Further exploration of reasons for augmentation, whether artificial rupture of membranes was undertaken for diagnosed failure to progress or not, and whether anaesthesia was used are all factors that warrant future investigation.

Sexual abuse and length of labour

This study could not support Parrat's (1994) suggestion that abused women have faster labours or confirm Jacobs (1992) findings of longer labours. Both used maternal perception to measure length of labour. The theory that the body holds memory of abuse makes the theory that a response of anxiety or dissociation may delay or increase rate of labour plausible. This study did not analyse for differentiation

between women having their first or subsequent babies for length of labour and use of chart review to apply medical measurement of labour may result in different findings.

Sexual abuse and type of birth

Previous research supports a finding of no significant association between sexual abuse and type of birth (normal vaginal, assisted vaginal or caesarean section) (Benedict et al., 1999; Grimstad & Schei, 1999; Jacobs, 1992). Interestingly, if a history of sexual abuse is associated with prolonged labour and increased rates of labour augmentation as other studies suggest (Jacobs, 1992; Tallman & Hering, 1998), it would seem feasible that type of birth may then be affected as medical intervention is associated with increased rates of assisted or caesarean births. Only Tallman and Hering (1998) found this to be so, reporting an 82% caesarean section rate for abused primigravida transferred to hospital in labour compared to 29% of non-abused primigravida. There is a need for future research to identify other factors such as failure to progress and fetal distress that may have influenced type of birth.

Sexual abuse and social support

Although there was no significant association between sexual abuse and perceived levels of social support, the high levels of support and partner presence reported by participants in this study may be important factors related to findings for birth experience and birth trauma. Studies have found low levels of support in labour and absence of a partner to be significantly associated with post-traumatic stress symptoms after birth (Ayers & Pickering, 2001; Czarnocka & Slade, 2000; Soet et al., 2003). Overall, a large majority of women in this study (91%) felt well supported and had partners present (95%), thus theoretically influencing a lower prevalence of birth trauma for the sample. Social support may be an integral part of attaining non-traumatic birth for sexual abuse survivors.

Sexual abuse and birth experience

Birth experience scores were not significantly different between non-abused and abused women (49 and 49 respectively). Overall, the sample W-DEQ sum scores indicated a positive birth experience and mean W-DEQ scores were comparable with those in other studies. For example Wijma et al (1997) reported womens' cognitive appraisal of their births in a population based study of women who had given birth over a one year period. Wijma et al (1997) reported W-DEQ mean scores of 52.7 (primigravida) and 45.8 (multigravida). Good support may have been contributory toward positive appraisal of birth experience.

Sexual abuse and birth trauma

The rates of PTSD (1.2%) and PTSD symptoms (25.9%) following birth in this study are similar to those found in other studies. Soet et al (2003) reported rates of 1.9% and 34% respectively; Czarnocka and Slade (2000) 3% and 24%; and Creedy et al (2000) 5.6% and 33%. However, the times at which rates were calculated differed. Soet et al (2003), Creedy et al (2000) and Czarnocka and Slade (2000) measured symptoms at 4-6 weeks postpartum and (Ayers & Pickering, 2001)) at 6 months post partum. Ménage reported a 6% PTSD (DSM-III-R criteria) rate for abused women who had undergone obstetric or gynaecological procedures at mean 4.6 years since time of procedure. One third of the procedures were birth related. The current study supports these studies' findings of a 1.5% - 6% rate of PTSD in the childbearing population. The criteria fulfilment rates of 43.5% in this study for traumatic event (Criterion A), are also comparable. Soet et al. (2003) reported a rate of 34% and Creedy et al (2000) reported 33%. Czarnocka and Slade (2000) and Soet et al. (2003) support the findings of this study that Criteria D (hyperarousal) was most common, followed by B (intrusion) and then C (avoidance).

Although the TES was developed to measure birth trauma, Criterion D can be construed as containing general rather than specifically birth related statements, for example; “I always feel tense and alert”. Other studies have included anxiety measuring instruments, acknowledging that hyperarousal scores may be considered “an expression of general anxiety” (Czarnocka & Slade, 2000, p.47). Czarnocka and Slade (2000) conclude that there is difficulty in encompassing aspects of a specific event for hyperarousal and it is suggested that “trait anxiety may act as a vulnerability factor for subsequent post-traumatic stress symptoms following labour “ (p.47). The most common symptom of hyperarousal for this study may possibly be attributable to the often demanding and tiring role of being mother to a preschool child as all of the participants were. Mothers who had birthed babies subsequent to the child at kindergarten may have been experiencing sleep disturbance and sleep deprivation, possibly confounding measurement of hyperarousal symptoms in this study.

Even though nearly half of this study sample defined birth as a PTSD traumatic event by fulfilling Criterion A, overall sum scores for birth trauma were not high. It is possible that women coped well during and after birth due to social support. Studies have found that lack of support from staff is particularly related to development of PTSD and PTSD symptoms (Czarnocka & Slade, 2000; Wijma et al., 1997). It may be postulated that support from family, whanau and friends as well as from health professionals contributed toward lower levels of birth trauma. In particular this care is likely to be provided by midwives, as midwives are most likely to be the lead maternity carer with whom women are registered at time of birth (69% in 2001) (Ministry of Health, 2003). Comments from women in this study support the theory that midwives are providing support and care for women that culminates in positive birth experiences. For example, one participant described an “awesome, magical experience with only my

midwife and husband ”. The birth trauma findings for this sample four years after birth confirm the need for health professionals to be aware of PTSD symptomology and possible long term effects in relation to care of birthing women and emphasise the importance of midwives in providing support and promoting physiological birth.

Sexual abuse and postnatal depression

This study found an association between postpartum depression and a history of sexual abuse. The prevalence rate of postnatal depression for this study (28%) was higher than reported in the literature. In their meta-analysis exploring rates of postpartum depression, O’Hara and Swain (1996) reported a prevalence rate of 13%. The higher rate of 28% in this study could be attributed to the study question not requiring confirmation of a clinical diagnosis from a health professional. This study did not have a focus on postnatal depression, but the findings of a significant association between these two variables in the absence of such between abuse and birth experience and birth trauma is somewhat surprising. Beck’s (2001) meta-analysis of studies exploring the magnitude of the relationships between postpartum depression and various risk factors does not specifically identify a history of sexual abuse as a risk factor. However, factors identified include life stress, previous depression and unwanted pregnancy, all of which have been associated with sexual abuse in other studies (Fergusson et al., 1997; Fergusson, Swain-Campbell, & Horwood, 2002).

General Interpretations

Overall, this study found that most women, including abuse survivors, experienced birth as positive and non-traumatic. This finding is supported by Parratt (1994), who, in a study of the experience of childbirth for survivors of incest found “the majority of births that the survivors had could be called ‘uneventful’ whether or not participants had remembered their abuse at the time” (p.37). What arise from the current

study findings are many more questions. Undoubtedly there are sexual abuse survivors who have experienced traumatic births attributable to prior sexual abuse. How do health professionals and midwives identify those at high risk?

Findings from qualitative research studies exploring birth experiences for women who have been sexually abused suggest that experience of touch and intrusion is important, and the anecdotal literature and qualitative research findings described in Chapter 2 support this. The possible connections between sexual abuse and childbirth are complex and diverse and largely unexplored. Many of the effects of sexual abuse potentially impact upon parts or all of the childbirth process, from preconception to postpartum. For example, childhood sexual abuse may have been an associative factor relating to adolescent alcohol and drug problems, to adolescent pregnancy and thus to consequent health concerns related not only to an adolescent pregnancy but also to health effects of drugs and alcohol on mother and baby. Any difficulty a sexual abuse survivor may have cannot be treated in isolation but must be placed in context. These conclusions are reflected in the conceptual framework (Seng, 2002) within which this study is situated (refer p.54).

Implications for Practice

The results of this study support the need for midwives' practice to incorporate an awareness of the prevalence of sexual abuse and PTSD and PTSD symptoms among women during all phases of childbearing. The findings are reassuring for midwives and other health professionals and birthing women. The lack of association between sexual abuse and birth outcomes and the high levels of social support show women feel well cared for during labour and birth. Midwives can be reassured that birth is not an abuse-related traumatic experience for many sexual abuse survivors.

Advice to avoid triggering traumatic memories by practising in a sensitive manner is appropriate, but if this were done in isolation, it may lead to health practitioners treating the symptoms and not addressing the cause. If care is provided in this generalised manner, there is a potential effect to avoid routine antenatal screening for sexual abuse. But without antenatal screening, how can midwives reassure women, how can those women at highest risk be identified? McGregor (2003) found in her study of childhood sexual abuse survivors' experiences of therapy that some women expressed frustration that health professionals very rarely asked about the possibility of abuse even though they had displayed common indicators of sexual abuse for much of their lives. However, screening for sexual abuse must be undertaken within a safe environment for both the midwife and woman, and advice about avoidance of replication of abuse and screening should be undertaken with training. McGregor (2003) asserts the necessity for health professionals to be able to ask about and deal with disclosures of a history of childhood sexual abuse competently. This is a challenging endeavour, but rejecting the challenge of undertaking safe screening, remaining silent and not opening the door for disclosure is latently reinforcing the silence of sexual abuse enforced by perpetrators.

The Ministry of Health Family Violence Project, instigated in 2001, was being undertaken in New Zealand to develop practice guidelines and train health professionals to enable preparation of a response plan to family violence (Fanslow, 2002). Practice guidelines recommend routine screening questions for physical, emotional and sexual violence (particularly focusing on partner and child abuse), however as yet there are no specific guidelines for addressing among adults a history of sexual abuse, particularly in childhood. In the absence of established training programmes dealing specifically with the issue of sexual abuse screening, midwives have to continue to take responsibility for

their own professional development and be self aware of the research and issues around sexual abuse that affects one third of childbearing women. The implementation and evaluation of screening for family violence in New Zealand is ongoing as the health consequences of physical, emotional and sexual abuse are increasingly recognised. This is a developing and challenging field for many midwives and health professionals, but the importance of using research to inform practice, and develop practice accordingly is well established (Proctor & Renfrew, 2000).

Implications for Future Research

Future research needs to address both objective and subjective outcomes of labour and birth for survivors of sexual abuse suffered in childhood and adulthood. A paucity of research studies regarding the associations between sexual abuse and childbirth experience justifies both quantitative and qualitative research as beneficial additions to the current literature. There is particularly an absence of research from New Zealand. The study samples relating to sexual abuse and childbirth have only included survivors of childhood sexual abuse and do not address the possible effects of adult sexual abuse or revictimisation. While an association was not found in this sample of women who freely disclosed sexual abuse, it is possible that for women who feel unable to disclose, there is an association between abuse experiences and birth trauma. It may be that these women are those survivors who experienced frequent or more invasive types of abuse. There is a need to examine abuse strata such as type and frequency of abuse and age at occurrence.

The important comorbidity of sexual abuse and postpartum depression needs to be investigated more closely in the future, particularly in the early postpartum period as a time lapse of 3 to 5 years since birth for findings in this study will have caused loss of sensitivity. It may be that the association between sexual abuse and postnatal depression

is a more relevant issue with regard to associations between sexual abuse and childbirth than, for example, obstetric outcomes.

As discussed previously in Chapter 2 (p.44), when considering birth trauma there is a possibility that labour provoked traumatic memory for women who had no conscious memory of sexual abuse prior to labour. If this was the case, PTSD or PTSD symptoms may have been an outcome following birth, and although associated, PTSD would not have acted as a mediating factor. Rather, events and experiences during labour and birth would have been factors that mediated outcome and the occurrence of symptoms of PTSD. It is possible that the theory of traumatic birth experience precipitating PTSD or PTSD symptomology for sexual abuse survivors, runs concurrently with the theory of PTSD precipitating traumatic birth for sexual abuse survivors. The scope of this study did not include this theory but it could be conceptualised in an alternative to Seng's (2002) adaptation of the framework for research on violence occurring around the time of pregnancy (Peterson et al., 1997).

Research that has explored PTSD predating childbirth is minimal. Ayers (2003), citing only one published study to date that has screened for PTSD in pregnancy, acknowledges "the possibility that causal factors for women with pre-existing PTSD are different from those for new cases of PTSD after birth" (p.170). Research of development of postnatal PTSD is in its early stages and although direction for future research in this area has been suggested, there is limited evidence currently for conclusions to be drawn (Bailham & Joseph, 2003).

Associations between sexual abuse and positive labour and birth experience need to be explored. The literature presents stories and interviews with women who have experienced sexual abuse and adverse traumatic birth experiences but does not generally explore experiences of abused women with positive birth outcomes.

Exploring what promotes a positive experience as opposed to exploring what factors lead to a negative experience incorporates an approach of “salutogenesis” as advocated by midwife Professor Soo Downe (Director of Research in the Childbearing and Health Unit, University of Central Lancashire, England) at the NZ College of Midwives Conference, 2004. What is happening for women who have a history of sexual abuse, but report positive birth experiences? Are they women who have been subjected to less intrusive types of abuse? What associative factors are there? Anecdotal literature suggests birth may be empowering for survivors of abuse (Aldcroft, 2001; Kitzinger, 1992). Is birthing itself a healing process? Are birth processes simply just not reminiscent of abuse at all for most abuse survivors? Researching these issues will help to identify and assess what and when intervention is most helpful for survivors for sexual abuse. If interventions are recommended, such as anticipatory guidance given to women who disclose sexual abuse when screened antenatally, there must be subsequent research to explore efficacy.

Conclusion

This study has shown that sexual abuse is a common occurrence among a childbearing population of women. Overall, women had positive birth experiences and felt well supported. One quarter of the women had PTSD symptoms four years after giving birth. A history of sexual abuse was not significantly associated with adverse birth outcomes in a sample of women who recently gave birth. This suggests that many women are able to recover and heal from sexual abuse experiences and cope positively with potentially traumatising life events such as birth and is a reflection of strength and resilience in women.

The lack of association also suggests that as main caregivers during labour, the care provided by midwives is sensitive and appropriate. After my presentation of this

study at the NZ College of Midwives Conference (2004), I was approached by a woman from my audience. As a sexual abuse survivor this woman had positive birth experiences despite complications, and she attributed this to the caring and nurturing provided by her midwife. She stressed to me how vital the midwife's caring role is in relation to sexual abuse survivors and birthing and literally pleaded with me to emphasise this whenever I presented my study. For me, this provided affirmation of the significance of sensitive midwifery care for survivors of sexual abuse. Together, women and midwives work towards and achieve birth experiences that are memorable for their positivity. This reflects the principle of partnership between midwife and woman as described in the midwifery partnership model developed in New Zealand by Guilliland and Pairman (1994).

While an association between sexual abuse and adverse outcomes was not found in this study, further research is needed to identify women who may be at high risk for traumatic birth experiences. Undertaking screening for sexual abuse in the antenatal period in a safe environment may provide reassurance for women and will enable identification of those women at high risk. I end this thesis with a quote from a sexual abuse survivor that reflects on the practice of midwives and expresses what I believe to be a wholly justified faith in midwives.

“This is hard work. But I believe in midwifery. I believe that midwives empower women, teach us to trust our bodies, help us to know ourselves. I believe that midwives can help us heal.” (Heritage, 1994, p.11)

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APPENDICES

Appendix A

Ethical Approval

MEMORANDUM



Student Services Group – Academic Services

To: Jane Koziol-McLain
From: Madeline Banda
Date: 22 April 2004
Subject: 04/33 Are life experiences linked to labour and birth?

Dear Jane

Your application for ethics approval was considered by AUTEK at their meeting on 19/04/04.

Your application was approved for a period of two years until 19/04/06.

You are required to submit the following to AUTEK:

- A brief annual progress report indicating compliance with the ethical approval given.
- A brief statement on the status of the project at the end of the period of approval or on completion of the project, whichever comes sooner.
- A request for renewal of approval if the project has not been completed by the end of the period of approval.

Please note that the Committee grants ethical approval only. If management approval from an institution/organisation is required, it is your responsibility to obtain this.

The Committee wishes you well with your research.

Please include the application number and study title in all correspondence and telephone queries.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Madeline Banda', is written over a light blue horizontal line.

Madeline Banda
Executive Secretary
AUTEK
Cc: 0005194 Elaine Fyfe

Appendix B

Life Experiences Questionnaire

Life Experiences, Labour and Birth Questionnaire

Try to find time to answer this questionnaire when you can sit down and complete it without being disturbed and without feeling rushed.

- There are no right or wrong answers.
- If you feel unable to complete any of the questions, just leave them blank.
- Please complete all the sections as you feel able.

The questionnaire has five sections (A to E). There are instructions about how to answer questions throughout.

I would like you to answer the questions according to your experience of giving birth to the child who is currently attending kindergarten. If you have more than one child at kindergarten, but they are not twins/triplets, please answer the questions about the birth of your youngest child attending kindergarten. If you do have twins or triplets, please note that the questions are always asked in the form of one child, please assume the questions also mean "children".

**Please return the questionnaire in the stamped addressed envelope
provided by June 30th 2004.**



SECTION A: Having your baby

The following 14 questions ask about the way that you had your baby. Please answer questions for the birth of the child who is currently attending kindergarten and no other.

A1. How old is your child who is currently attending kindergarten?

.....
YEARS and MONTHS

A2. Is the child who is currently attending kindergarten your firstborn child?

☐ YES

☐ NO

A3. Did you have your baby in Auckland?

☐ YES

☐ NO

A4. Where did you have your baby?

- ☐ Home
☐ Birthing centre/unit or smaller hospital (low risk)
☐ Hospital
☐ Other – specify

A5. How many weeks pregnant were you when you had your baby?

..... weeks

A6. How did labour start?

- ☐ I did not go through labour (go to question A11)
☐ Labour started on its own (go to question A7)
☐ Labour was induced (started for you) using the following method/s (tick all that apply) →
☐ Prostin tablets/gel
☐ Breaking the waters
☐ An intravenous drip (in your arm)
☐ Other: (please specify).....

A7. There are different types of pain relief that women use during labour. Tick all that you used for your labour pain.

- ☐ Massage
☐ Acupuncture
☐ Water relaxation including pool
☐ TENS machine
☐ Gas and air
☐ Injection of painkiller e.g. pethidine (into a vein, drip, or into your thigh or bottom)
☐ Epidural
☐ Other (please state)
☐ none of the above

A8. When you were in labour, did a midwife or doctor artificially break your waters (rupture of membranes)?

☐ NO

☐ YES

A9. When you were in labour, did you have a drip (intravenous line)?

☐ NO

☐ YES → Was the drip to make the contractions stronger?

☐ NO

☐ YES

A10. How many hours were you in labour for?

..... hours.

A11. What type of birth did you have?

☐ Normal vaginal birth

☐ Assisted vaginal birth → (tick one)

☐ Suction cap (ventouse)

☐ Forceps

☐ Suction cap and forceps

☐ Caesarean section → (tick one)

☐ Done as an emergency before labour

☐ Done as an emergency after labour had started

☐ Elective (prearranged)

A12. Was the birth of the child currently attending kindergarten the first vaginal birth you had ever experienced?

☐ YES

☐ NO

☐ I had a caesarean section

A13. Please answer the following statement by ticking one of the options:

"I felt well supported during my labour and birth"

- ☐ None of the time
☐ A little of the time
☐ Some of the time
☐ Most of the time
☐ All of the time

A14. Did you have a partner around the time of birth?

- ☐ YES
☐ NO

The questions about having your baby are now complete. Please go to the next section.

SECTION B: Childbirth experience

The next 33 items are about feelings and thoughts women may have after childbirth. The answers to each item appear as a scale from 0 to 5. The outermost answers (0 and 5) are the opposite extremes of a feeling or thought. Please draw a circle around the number belonging to the answer that most closely corresponds to how you think your labour and birth were.

How did you experience your labour and birth as a whole?

B1	0	1	2	3	4	5
	Extremely fantastic					Not at all fantastic
B2	0	1	2	3	4	5
	Extremely frightful					Not at all frightful

How did you feel in general during the labour and birth?

B3	0	1	2	3	4	5
	Extremely lonely					Not at all lonely
B4	0	1	2	3	4	5
	Extremely strong					Not at all strong
B5	0	1	2	3	4	5
	Extremely confident					Not at all confident
B6	0	1	2	3	4	5
	Extremely afraid					Not at all afraid
B7	0	1	2	3	4	5
	Extremely deserted					Not at all deserted

SECTION E: General questions

E1. What age are you?

I was years at my last birthday.

E2. Tick as many boxes as you need to show which ethnic group(s) you belong to.

- ☐ NZ Maori
☐ NZ European (pakeha)
☐ Other European
☐ Samoan
☐ Cook Island Maori
☐ Tongan
☐ Niuean
☐ Chinese
☐ Indian

Other → Print your ethnic group(s)

E3. Do you have any secondary school qualifications?

- ☐ NO
☐ YES → ☐ NZ secondary school qualification
☐ Overseas secondary school qualification

E4. Do you have other qualification such as a trade certificate, a diploma or a degree, that you had to pass a course lasting at least 3 months full time (or the equivalent) to get? (Do not count secondary school qualifications or part of an unfinished qualification).

- ☐ YES
☐ NO

You have come to the end of the questionnaire. I appreciate your time and I would like to thank you for participating. I realise that some of the questions may have been difficult for you to answer. If you have any comments you would like to make, or anything you would like to add, please feel free to write them on this questionnaire.



D9. Did any of these things happen to you when you were pregnant with the child who is currently attending kindergarten?

- ☐ NO
☐ YES

D10. Some women have been subjected to an unwanted sexual experience by a single person, other women have been subjected to numerous experiences by a single person or by different people. Tick all the relevant boxes that apply for you, indicating whether the person(s) was male(s)/ female(s).

	Male(s)	Female(s)
Current partner	<input type="checkbox"/>	<input type="checkbox"/>
Former partner	<input type="checkbox"/>	<input type="checkbox"/>
Parent	<input type="checkbox"/>	<input type="checkbox"/>
Step Parent	<input type="checkbox"/>	<input type="checkbox"/>
Sibling (brother/sister)	<input type="checkbox"/>	<input type="checkbox"/>
Family member other than above eg, cousin, uncle	<input type="checkbox"/>	<input type="checkbox"/>
Same age playmate, schoolmate, or other person under 16	<input type="checkbox"/>	<input type="checkbox"/>
Family friend (16 years or older)	<input type="checkbox"/>	<input type="checkbox"/>
Other known person who didn't belong to your family, for example teacher, priest, counsellor	<input type="checkbox"/>	<input type="checkbox"/>
Stranger, person totally unknown to you	<input type="checkbox"/>	<input type="checkbox"/>

D11. Have you ever received any counselling in relation to any of the experiences?

- ☐ NO
☐ YES

You have finished the fourth section. The questionnaire ends with 4 general information questions in the last section (section E) on the next page.

B8	0	1	2	3	4	5
Extremely weak						Not at all weak
B9	0	1	2	3	4	5
Extremely safe						Not at all safe
B10	0	1	2	3	4	5
Extremely independent						Not at all independent
B11	0	1	2	3	4	5
Extremely desolate						Not at all desolate
B12	0	1	2	3	4	5
Extremely tense						Not at all tense
B13	0	1	2	3	4	5
Extremely glad						Not at all glad
B14	0	1	2	3	4	5
Extremely proud						Not at all proud
B15	0	1	2	3	4	5
Extremely abandoned						Not at all abandoned
B16	0	1	2	3	4	5
Totally composed						Not at all composed
B17	0	1	2	3	4	5
Extremely relaxed						Not at all relaxed

What did you feel during the labour and birth?

B18	0	1	2	3	4	5
Extremely happy						Not at all happy
B19	0	1	2	3	4	5
Extreme panic						No panic at all
B20	0	1	2	3	4	5
Extreme hopelessness						No hopelessness at all
B21	0	1	2	3	4	5
Extreme longing for the child						No longing for the child at all
B22	0	1	2	3	4	5
Extreme self-confidence						No self-confidence at all
B23	0	1	2	3	4	5
Extreme trust						No trust at all

B24 0 1 2 3 4 5
Extreme pain No pain at all

What happened when the labour was most intense?
(If you did not labour go to question 28)

B25 0 1 2 3 4 5
I behaved extremely badly I did not behave badly at all

B26 0 1 2 3 4 5
I dared to totally surrender control to my body I did not dare to surrender control to my body at all

B27 0 1 2 3 4 5
I completely lost control of myself I did not lose control of myself at all

How was the very moment you birthed your baby?
B28 0 1 2 3 4 5
Extremely enjoyable Not at all enjoyable

B29 0 1 2 3 4 5
Extremely natural Not at all natural

B30 0 1 2 3 4 5
Totally a matter of course Not at all a matter of course

B31 0 1 2 3 4 5
Extremely dangerous Not at all dangerous

Had you, during the labour and birth, fantasies like for example....

B32 ... Fantasies that your child would die during labour/birth?

Never 0 1 2 3 4 5
Very often

B33 ... Fantasies that your child would be injured during labour/birth?

Never 0 1 2 3 4 5
Very often

Questions of the childbirth experience are now complete. Please continue to the next section.

D5. Has anybody against your will tried, but not succeeded in putting a penis, object or other part of the body (e.g. finger), into your vagina, mouth or rectum (bottom)?

☐ NO

☐ YES → WHEN (tick all that apply)

☐ As a child ☐ As an adolescent ☐ As an adult

→ HOW OFTEN (tick only one)

☐ Once ☐ Few times ☐ Many times

D6. Has anybody against your will put a penis, object or other part of the body, such as finger, into your vagina, mouth or rectum?

☐ NO

☐ YES → WHEN (tick all that apply)

☐ As a child ☐ As an adolescent ☐ As an adult

→ HOW OFTEN (tick only one)

☐ Once ☐ Few times ☐ Many times

D7. Have you in any other way been sexually humiliated? (For example, by being forced to look at or participate in pornography or similar against your will, forced to show your body naked or forced to watch when somebody else showed his/her body naked, or engaged in sex?)

☐ NO

☐ YES → WHEN (tick all that apply)

☐ As a child ☐ As an adolescent ☐ As an adult

→ HOW OFTEN (tick only one)

☐ Once ☐ Few times ☐ Many times

If you answered NO to all seven questions D1 - D7, please go to the final section (Section E) of this questionnaire.

If you answered YES to any of the questions D1 - D7, please continue with questions D8-D11.

D8. How old were you when any of this happened for the first time?

I was approximately years old.

D1. Has anybody *against your will* forced you to touch his or her genitals (private parts) such as vagina, rectum/bottom, penis?

- ☐ NO
☐ YES → WHEN (tick all that apply)
☐ As a child ☐ As an adolescent ☐ As an adult
→ HOW OFTEN (tick only one)
☐ Once ☐ Few times ☐ Many times

D2. Has anybody *against your will* forced you to touch parts of his or her body other than genitals, such as nipples or breasts, in a sexual way?

- ☐ NO
☐ YES → WHEN (tick all that apply)
☐ As a child ☐ As an adolescent ☐ As an adult
→ HOW OFTEN (tick only one)
☐ Once ☐ Few times ☐ Many times

D3. Has anybody *against your will* touched your genitals?

- ☐ NO
☐ YES → WHEN (tick all that apply)
☐ As a child ☐ As an adolescent ☐ As an adult
→ HOW OFTEN (tick only one)
☐ Once ☐ Few times ☐ Many times

D4. Has anybody *against your will* touched parts of your body other than your genitals such as nipples, breasts in a sexual way?

- ☐ NO
☐ YES → WHEN (tick all that apply)
☐ As a child ☐ As an adolescent ☐ As an adult
→ HOW OFTEN (tick only one)
☐ Once ☐ Few times ☐ Many times

SECTION C: After childbirth

Women describe different feelings after childbirth, both positive and negative. Women commonly feel tearful three or four days after birth and many suffer from postnatal depression. This section asks about how you felt after birth and how you feel now.

Please tick yes or no to the following question:

C0. Did you suffer from postnatal depression after the birth of the child who is currently attending Kindergarten?
☐ NO

☐ YES → Did you have any treatment for postnatal depression?

☐ NO ☐ YES

Below you will find a number of statements that women have used to describe how they felt after childbirth. Read every statement once and circle the answer (1-4) that best corresponds at this time in your life with your birth experience of the child who is currently attending kindergarten. There are no right or wrong answers.

C. How would you describe your birth experience?

- | | Not at all | Some-what | Much | Very much |
|---|------------|-----------|------|-----------|
| a. The labour/birth was a trying experience | 1 | 2 | 3 | 4 |
| b. During labour/birth I felt physically offended | 1 | 2 | 3 | 4 |
| c. During labour/birth I was afraid that I or my baby would be hurt or was going to die | 1 | 2 | 3 | 4 |
| d. During labour/birth I felt anguished, helpless or horrified | 1 | 2 | 3 | 4 |

How are you doing at the present time in your life?

Please continue with the statements below and describe how you feel at the present time in your life. Answer by circling one number from 1 (not at all) to 4 (often). Some of the statements relate to your birth experience and some are more general.

- | | Not at all | Rarely | Some-times | Often |
|---|------------|--------|------------|-------|
| C1. Unpleasant thoughts and images of the childbirth experience force themselves on me | 1 | 2 | 3 | 4 |
| C2. I have unpleasant dreams about the childbirth experience | 1 | 2 | 3 | 4 |
| C3. Suddenly I feel like the childbirth is recurring and I am filled with horrifying feelings | 1 | 2 | 3 | 4 |
| C4. All reminders of my childbirth experience cause intense psychological distress | 1 | 2 | 3 | 4 |

	Not at all 1	Rarely 2	Sometimes 3	Often 4
C5. Reminders of the childbirth experience cause physical distress (i.e. heart beats faster; increased breathing, feeling tense, starting to sweat)				
C6. I try to stay away from thoughts, emotions or conversations that might remind me of the childbirth experience				
C7. I try to avoid activities, places or persons that might remind me of the childbirth experience				
C8. I have difficulties remembering frightening parts of the labour/birth				
C9. I have difficulties engaging in activities I enjoyed before giving birth				
C10. I feel detached or estranged from other people				
C11. My ability to love or be affectionate is restricted				
C12. I feel that my future is meaningless				
C13. I have difficulties falling or staying asleep because thoughts and memories of the labour/delivery disturb me				
C14. I can suddenly feel very irritated or angry for no reason				
C15. I find it difficult to concentrate				
C16. I always feel tense and alert				
C17. I react strongly to unexpected events				

Now, please consider how much the items C1-C17 above affect your daily life by circling a number from 0 (does not affect me at all) to 10 (affects me very much) on the scale below.

C18. How much is your daily life affected?

Does not affect me at all	0	1	2	3	4	5	6	7	8	9	10	Affects me very much

C19. If you feel that your daily life is affected by the things mentioned above, for how long has it been that way? (Calculate the time from when you first experienced any of the problems).

..... Months (if more than 12 months, how many years?)

Thank you. The questions of your experiences after childbirth are now complete. Please continue to the next section.

SECTION D: Experience of trauma

In their lives, many women experience different forms of unwanted sexual experiences from relatives, other people that they know or from strangers. The seven questions on the following page deal with any unwanted sexual experiences you may have had in your life.

If you have not been subjected to such experiences in your life, you might feel the questions are unnecessary to answer, but this is not the case. All women's answers are of value, so please complete this section.

Answering may make you feel uncomfortable or upset. There might be various ways that you respond to reading the questions, for example you may be reminded of difficult times or you might have dreams related to your experiences. These are common reactions.

Below are organisations that provide support and counselling services for women in Auckland. Please do contact them if you would like to talk over your experiences or thoughts and feelings that arise when filling out the questions. They will keep anything that you say private. You can contact them whenever you feel ready to, either soon or later on, even if it is a long time from now.

- Auckland Sexual Abuse HELP Foundation (24 hr phone line)
09 623 1700
- Te Wharehuru Hau O Meri
09 270 2631
- AUT Health and Counselling Services (three free sessions)
09 917 9999 x7808 Jan (confidential line)
- Chinese Lifeline (Cantonese or Mandarin)
0800 888 880 or 522 2088
- Mon-Thurs: 10am-2pm and 7pm-10pm Fri: 10am-2pm
- TABS (Trauma After Birth Society)
www.tabs.org.nz (contact details for counsellors on website)

Answer the questions as you feel able. If there are any questions you do not feel able to complete, leave them and continue. Your answers will be anonymous. There are no right or wrong answers.

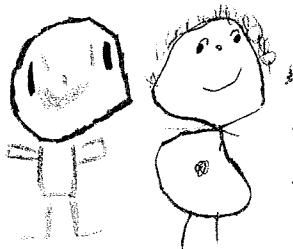
Instructions for answering

Tick yes or no to having ever experienced any of the events described in questions D1-D7 that follow on the next page

If you answer yes to any of the questions, you will be asked to identify WHEN the event occurred and HOW OFTEN. Answer HOW OFTEN considering events across childhood, adolescence and adulthood.

Appendix C

Letter of Support from Auckland Kindergarten Association



Auckland Kindergarten Association

Myers Park, 381 Queen Street, P.O. Box 6933, Wellesley Street, Auckland
Telephone 09 373 5635, Facsimile 09 307 1248

18th September 2003

Elaine Fyfe

3 Sea Spray Drive
Bucklands Beach
Auckland

Dear Elaine,

Following our phone conversation regarding your request to contact kindergartens to access parents whom may be interested in being included in research for your thesis, I confirm approval by the Auckland Kindergarten Association. To allay any concerns teachers at kindergartens may have, you could produce this letter as endorsement.

I have spoken to Tanya Harvey, the General Manager, and she is agreeable that you approach kindergartens on an individual basis, giving teachers the opportunity to make initial contact with parents in their community.

I have included a list of kindergarten addresses and phone numbers for your information and wish you every success with your thesis.

Yours sincerely

Jean Elmer
Professional Support Manager

Appendix D

Data Dictionary

Table 18. Data dictionary

Concept	Variable name	Variable type	Measurement	Response options	Level of Measurement
History of Sexual abuse	Sexual abuse	Independent	Ever experienced any type of sexual abuse	0 = no 1 = yes	Nominal
History of Sexual abuse	Abuse time	Independent	When abuse occurred during lifetime	Child Adolescent Adult 0 = no 1 = yes for each measurement	Nominal
History of Sexual abuse	Abuse Frequency	Independent	How often abuse occurred overall	Once Few Many 0 = no 1 = yes for each measurement	Nominal
History of Sexual abuse	Counselling	Confounding	Whether participant ever had any counselling for sexual abuse	0 =no 1 = yes	Nominal
History of Sexual abuse	First abuse	Independent	Age at occurrence of first abuse		Continuous

Table 18. (continued)

Concept	Variable name	Variable type	Measurement	Response options	Level of measurement
History of Sexual abuse	Perpetrator	Independent	Who perpetrated the abuse	0 =no 1 = yes for each response option current partner former partner parent step parent sibling family member other than above same age play/school mate family friend known person not family stranger	Nominal
			Gender of perpetrator	0 =no 1 = yes for each response option	
Obstetric outcomes	Onset of labour	Dependent	Type of onset of labour	0 = no labour 1 = spontaneous 2 = induced	Nominal

Table 18. (continued)

Concept	Variable name	Variable type	Measurement	Response options	Level of measurement
Obstetric outcomes	Augmentation of labour	Dependent	Any augmentation of labour	artificial rupture of membranes or use of intravenous oxytocin 0 = no 1 = yes for each response option	Nominal
Obstetric outcomes	Length of labour	Dependent	Maternal self report of length of labour		Continuous
Obstetric outcomes	Type of birth	Dependent	Type of birth	0 = unassisted vaginal 1 = assisted vaginal 2 = caesarean	Nominal
Obstetric outcomes	Vaginal birth	Confounding	Was this the first vaginal birth experienced	0 = no 1 = yes	Nominal
Obstetric outcomes	Social support	Dependent	Whether participant felt well supported during birth and if partner was present	0 = none of the time 1 = a little of the time 2 = some of the time 3 = most of the time 4 = all of the time Partner present 0 = no 1 = yes	Ordinal Nominal

Table 18. (continued)

Concept	Variable name	Variable type	Measurement	Response options	Level of measurement
Birth experience	Birth experience	Dependent	Experience of labour and birth measured by Wijma-Delivery Experience Questionnaire	Total W-DEQ scores	Continuous
Birth trauma	Birth trauma	Dependent	Measure of labour and birth and PTSD and PTSD symptomology by Traumatic Event Scale	Total TES scores PTSD 0 =no 1 = yes PTSD symptomology 0 =no 1 = yes	Continuous Nominal Nominal
Postnatal depression	Postnatal depression	Dependent	Maternal self report of occurrence of postnatal depression and any treatment	0 = no 1 = yes	Nominal
Demographic	Parity	Demographic	Whether child attending kindergarten was firstborn child	0 = no 1 = yes	Nominal
Demographic	Child age	Demographic	Age of child attending kindergarten		Continuous

Table 18. *(continued)*

Concept	Variable name	Variable type	Measurement	Response options	Level of measurement
Demographic	Place of birth	Demographic	Where birth occurred geographically	In Auckland 0 = no= 1 = yes	Nominal
			Where birth occurred locally	0 = home 1 = birthing centre 2 = hospital 3 = other	Nominal
Demographic	Gestation	Demographics	How many weeks pregnant participant was a time of birth		Continuous
Demographic	Age	Demographic	Age of participant at time of answering questionnaire		Continuous
Demographic	Education	Demographic	Level of education of participant	0 = none 1 = secondary 2 = tertiary	Ordinal

Table 18. *(continued)*

Concept	Variable name	Variable type	Measurement	Response options	Level of measurement
Demographic	Ethnicity	Demographic	Ethnicity as reported in questionnaire. Categories as used by Statistics NZ for population census	0 = no 1 =yes for each response option (may identify as >1 ethnicity) NZ Maori NZ European Other European Samoan Cook Island Maori Tongan Niuean Chinese Indian Other	Nominal

Appendix E

Permission for Use of W-DEQ and TES

Klaas Wijma**Från:** Klaas Wijma [klaas.wijma@imk.liu.se]**Skickat:** den 18 oktober 2003 10:20**Till:** Elaine Fyfe**Ämne:** SV: thesis assistance

Handwritten:
 18 October 2003
 K. Wijma

Dear Elaine Fyfe,

Here comes the permission:

"Herewith I offer you permission to use the questionnaires W-DEQ B and TES in your project as described in this email letter below."

This document is also sent by post and signed by me.

Some extra words about your project.

There is a great need of projects like yours. Your target group is a group, suffering in silence.

I myself have done research in different areas and two are "childbirth and anxiety", and "sexual abuse". Much of my work I have done together with my wife Barbro Wijma, professor of Women Health. This year she published about the topic of sexual abuse and gynaecology in the Lancet. (Wijma B, Schei B, Swahnberg K, Hilden M, Offerdal K, Pikarinen U, Sidenius K, Steingrimsdottir T, Stoum H, Halmesmaki E; Emotional, physical, and sexual abuse in patients visiting gynaecology clinics: a Nordic cross-sectional study. Lancet. 2003 Jun 21;361(9375):2107-13.) Maybe interesting for you. I don't know yet if there is an English version. I will ask.

In her department a questionnaire was developed on sexual abuse that also might be interesting for you.

I will send you the following:

1. By post and via email W-DEQ B
2. By post and via email TES childbirth
3. A doctoral thesis on PTSD and childbirth
4. A doctoral thesis on gender violence.

I send you the TES childbirth version. Of course there is an abuse version also.

Finally and out of the official order, I have a special feeling for New Zealand as one of my brothers emigrated 1953 (from The Netherlands, I am a Dutchman living in Sweden) to your country and thus I have some relatives over there. Look in the telephone cat. of Auckland and you probably find Shirley Wyma (they changed the name a little) who is my brother's daughter. Barbro and I visited your country once to see our relatives. We still remember the beautiful country you live in.

Vänliga hälsningar, sincerely yours, vriendelijke groeten
 Klaas Wijma

-----Ursprungligt meddelande-----

Från: Elaine Fyfe [mailto:elainefyfe@free.net.nz]**Skickat:** den 18 oktober 2003 04:43**Till:** Klaas Wijma**Ämne:** Re: thesis assistance

Professor Wijma,

Thankyou for your prompt reply and for the list of your publications, it will be most useful. I am delighted to receive your response to my request and I would also like to request permission to use the Wijma Delivery Experience Questionnaire (version B). I undertake to reference use of the both the Traumatic Event Scale and the WEDQ (B) in any of my written work and to forward copies of any publications to you. My project

Appendix F

Permission for Use of NorAq

From: "Katarina Swahnberg" <katsw@imk.liu.se>
To: "Elaine Fyfe" <elaine.fyfe@aut.ac.nz>
Date: 12/12/03 1:03a.m.
Subject: SV: SV: thesis assistance

Dear Elaine Fyfe,
You have our permission to use the NorAQ instrument in your study.
I'll be happy to give you assistance in using it.
Kind regards, Katarina

-----Ursprungligt meddelande-----

Fran: Elaine Fyfe [mailto:elaine.fyfe@aut.ac.nz]
Skickat: den 5 december 2003 21:17
Till: katsw@imk.liu.se
Amne: Re: SV: thesis assistance

To Katarina, thankyou for replying so promptly. Sounds fine, I look forward to hearing from you again, Elaine
Elaine Fyfe
Research Officer
Interdisciplinary Trauma Research Unit (ITRU)
Faculty of Health Studies
Auckland University of Technology
Private bag 92006
Auckland
09 917 9999 ext.7305
elaine.fyfe@aut.ac.nz

>>> "Katarina Swahnberg" <katsw@imk.liu.se> 12/05/03 20:14 PM >>>
Dear Elaine,
Thank you for contacting me, I will find out the answer to your question
asap and send you the guide after a revision is compelled but before Christmas - OK?

Kind regards, Katarina

-----Ursprungligt meddelande-----

Fran: Elaine Fyfe [mailto:elaine.fyfe@aut.ac.nz]
Skickat: den 4 december 2003 22:21
Till: katsw@imk.liu.se
Amne: thesis assistance

To Katarina Swahnberg
Good morning to you from New Zealand. My name is Elaine Fyfe, I am a post graduate masters student studying at Auckland University of Technology towards a Master of health Science (midwifery). I work part time at the university as a research officer for a trauma research unit and also part time as a midwife. I am undertaking a project for my thesis exploring associations between sexual abuse and birth outcomes. I been corresponding with Dr Klaus Wijma regarding use of instruments for my thesis. He has kindly given me permission to use The Traumatic Event Scale and the W-DEQ. He has also sent me the NorAQ questionnaire and a copy of your 'Prevalence of Gender violence'. I have sent a request on 24.11.03 to Dr Barbro Wijma for permission

Appendix G

Introductory Flyer

*Are life experiences
linked to labour and
birth?*



*For mothers of
Kindergarten children*



If this does not apply to you, please forward if possible

~ Kia ora, hello ~

For my Master of Health Science degree I am undertaking a research study about women giving birth. My study consists of a questionnaire for women to complete in their own time. Women who answer the questionnaire will remain anonymous.

The Auckland Kindergarten Association and the kindergarten teachers are aware and supportive of my study, and have agreed to hand out information packs for me but they have no other involvement. They will not know if you have taken part as completed questionnaires are posted directly to me.

Women have a wide range of life experiences and I am interested in whether some of these experiences are linked to labour and birth. The study questionnaire asks women about labour, birth and life experiences, including unwanted sexual experiences. I am interested in hearing from all women who have given birth, regardless of whether they have or haven't experienced different life events.

In addition to being a post graduate student at Auckland University of Technology (AUT) I am a midwife at National Women's Hospital. I also work part time as a research officer for the Interdisciplinary Trauma Research Unit at AUT. And, I am mum to two girls aged 7 and 9yrs (Kindergarten graduates).

*Do you think you might be interested in taking part?
Would you like to hear more?*

Tick one of the options below, tear off this section and leave in the yellow box provided at the kindergarten. Or you may post to me at:

Elaine Fyfe
AUT/HN
Private Bag 92006
Auckland.

- ☐ I will ask for an information sheet and questionnaire from the kindergarten teachers
- ☐ Please leave an information sheet and questionnaire in my kindergarten pocket
- Child's Name: _____
- ☐ Please post an information sheet and questionnaire to me:

Name and Address:

- ☐ I do not want to take part in this study.

Thank you,
Elaine

Appendix H

Participant Information Sheet



Participant Information Sheet

Study Title: Are life experiences linked to labour and birth?

Invitation

Kia ora, you are invited to participate in this study. I wish you to know that:

- Your participation is entirely voluntary
- Your identity will remain anonymous should you take part

What is the purpose of the study?

This study involves understanding how life experiences may link with childbirth for women.

How are people chosen to be part of the study?

Women who have children in kindergarten are being invited to participate. The Auckland Kindergarten Association and the teaching staff at the four participating kindergartens support this study but have no involvement beyond handing out sealed information packs for me. They will not know if you have participated and will not have access to the completed study questionnaires.

If I choose to participate what is involved?

You will be asked to complete a written questionnaire asking about birth history, birth experience, and life experiences, including unwanted sexual events. The questionnaire takes approximately 10 to 30 minutes to complete.

You are then asked to post the completed questionnaire to me by **June 30th 2004**. A stamped return envelope is provided.

What care is available for participants?

Answering the questionnaire has the potential to cause upset for some women. You may choose not to participate or may stop completing the questionnaire at any time. You may prefer to fill the questionnaire in whilst alone, with the support of whanau or family, or with a friend. You may wish to talk to someone about it afterwards. The following agencies are available to contact for support and are aware of this study. You may also call these agencies if you are currently in an abusive situation.

- Auckland Sexual Abuse HELP foundation
Phone: 623 1700 (This is a 24 hour number).
- Tewhareruruhau O Meri
Ph: 270 2631
- Auckland University of Technology (AUT) Health and Counselling.
As a research participant you are eligible for three free counselling sessions. For an appointment contact Jan at 917 9999, extension 7808 (this is a confidential line).

- Trauma After Birth Society (TABS)
www.TABS.co.nz (Counsellors are listed on their web site).
- Chinese Lifeline (Cantonese or Mandarin)
0800 888 880 or 522 2088
Mon-Thurs: 10am-2pm and 7pm-10pm
Fri: 10am-2pm

What are the benefits of the study?

The information gained from this study will potentially help to improve the care provided to women giving birth.

How will my privacy be protected?

Privacy and confidentiality are important to make you feel safe. No details that will identify you are asked for and the questionnaires are identified by number only. All study information is confidential and the questionnaires will be kept securely locked away. Kindergarten staff will have no access to any of the questionnaires or study data.

The study findings will be presented to healthcare journals and healthcare communities. No material that could personally identify you will be used in reports of this study.

Is there a cost for participating?

No, there will not be any cost to you except your time.

Opportunity to consider invitation

You may take up to four weeks to decide to participate in this study. Feel free to discuss the study with family/whanau/friends/counsellors before you decide.

Opportunity to receive feedback on results of research study

If you are interested in finding out about the results of this study, a one page summary of the study findings will be available from the kindergarten at the end of 2004.

Participant Concerns

Please feel free to contact the Project Supervisor if you have any questions about this study (details below). Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTECH, Madeline Banda, madeline.banda@aut.ac.nz, 917 9999 ext 8044.

Researcher Contact Details:

Elaine Fyfe
Auckland University of Technology
Faculty of Health (HN)
Private Bag 92006
Auckland
Ph. 917 9999 x 7305

Project Supervisor Contact Details

Assoc. Professor Jane Koziol-McLain
Auckland University of Technology
Faculty of Health (HN)
Private Bag 92006
Auckland
Ph. 917 9670

Approved by the Auckland University of Technology Ethics Committee on 22 April, 2004
AUTECH Reference number: 04/33

Appendix I

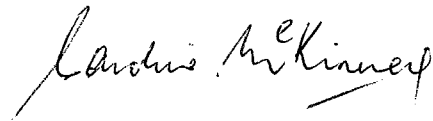
Letter of Support from Kawa whakaruruhau Komiti

From: Kawa Whakaruruhau Komiti
Schools of Nursing and Midwifery
To: Auckland University of Technology Ethics Committee
Date: 21 Jan, 2004
RE: Sexual Abuse: Prevalence and Association with Women's Health in
Childbirth

This memo acknowledges that Elaine Fyfe presented her research proposal to Kawa Whakaruruhau Komiti on 10th December, 2003. The Komiti made suggestions for potential Maori members of her advisory group (e.g. Hera Clark of Te Whareruruhau O Meri) and Maori participant referral sources (e.g. Tu Wahine or Te Whareruruhau O Meri). It was also pointed out that generalisability for Maori will be affected by the preference for many Maori families not to participate in Auckland Kindergarten Association programmes. Finally, the issue of funding for participant counselling services was raised. We understand that Elaine has followed up with regard to each of the above issues.

Elaine and her supervisor, Jane Koziol-McLain, have embarked on a path of participation, partnership and protection for Maori. We look forward to continuing our relationship with them as study plans, implementation and analysis progress.

Kia ora



Caroline McKinney

Secretary

Kawa Whakaruruhau Komiti